

THE TENTH  
**ANNUAL REPORT**  
*ON THE HEALTH*  
OF THE  
**COUNTY BOROUGH OF WIGAN,**  
FOR THE  
*YEAR ENDING DECEMBER 31st, 1905,*

BY  
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Fellow of the Royal Sanitary Institute.

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Medical Officer of Health, and

Medical Superintendent of the Borough Sanatorium for Infectious Diseases.

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WIGAN :

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## HEALTH COMMITTEE.

From November, 1905, to November, 1906.

CHAIRMAN :

ALDERMAN J. PHILLIPS.

VICE-CHAIRMAN :—THE MAYOR.

ALDERMAN A. BYWATER.

„ R. JOHNSON.

COUNCILLOR T. ASHTON.

„ R. BANNISTER.

„ M. BENSON.

„ J. BRADSHAW.

„ A. E. MATHER.

„ J. O'DONAHUE.

„ J. SAYER.

„ T. SMITH.

„ J. WILSON.

„ G. WOLSTENHOLME.

Committee meets 3rd Thursday in each month, at 2-30 p.m.,  
in the Committee Room.

# SANITARY WORKS COMMITTEE.

CHAIRMAN: COUNCILLOR W. LOWE.

VICE-CHAIRMAN: COUNCILLOR J. O'DONAHUE.

THE MAYOR.

ALDERMAN L. BOOTH.

„ R. BRITTON.

„ J. PHILLIPS.

COUNCILLOR M. BENSON.

„ J. BOTT.

„ T. CRITCHLEY.

„ E. DICKINSON.

„ J. LOWE.

„ J. PARKINSON.

„ J. PAXTON.

„ W. WILSON.

The Committee meet on the Fourth Monday in each month at  
3-45 p.m.

## SANATORIUM SUB-COMMITTEE.

From November, 1905, to November, 1906.

CHAIRMAN: R. BANNISTER.

ALDERMAN J. PHILLIPS.

THE MAYOR.

COUNCILLOR J. BRADSHAW.

„ A. E. MATHER.

„ J. O'DONAHUE.

„ M. BENSON.

„ G. WOLSTENHOLME.

The Committee meet the Wednesday before the Third Thursday  
in each month, at 11 a.m., at the Hospital.



## INSANITARY HOUSES COMMITTEE.

From November, 1905, to November, 1906.

CHAIRMAN: COUNCILLOR J. CHEETHAM.

VICE-CHAIRMAN: COUNCILLOR H. LOMAX.

THE MAYOR.

ALDERMAN R. BRITTON.

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„ R. T. FLETCHER.

„ T. LATHAM.

„ J. SAYER.

„ G. WOLSTENHOLME.

The Committee meet when required.

## MEDICAL OFFICER OF HEALTH'S DEPARTMENT.

Medical Officer of Health and Medical Superintendent of  
Sanatorium :

WILLIAM BERRY, F.R.C.S.I., D.P.H., F.P.S., Glasgow,  
Fellow of the Incorporated Society of Medical Officers of Health,  
Past President of North-Western Branch.  
Fellow of the Royal Sanitary Institute.  
Fellow Royal Inst., Public Health, and  
Fellow of the Royal Academy of Medicine, Ireland.

Chief Sanitary Inspector :

JOHN SUMNER, Certif. San. Inst., and Assoc. Royal San. Inst.  
Cert. City of London Guilds (Plumbing).

Assistant Sanitary Inspectors :

CHARLES H. FRANCE, Certif. San. Inst. and Assoc. Royal  
San. Inst.

FRED MARTLEW, Certif. San. Inst.

M. CLUNAN, Certif. San. Inst.

Smoke, Shop Hours Act, and Factory and Workshop Act :

FRED G. BISHOP.

Clerks :

ERNEST KNOWLES,

JOHN ASHTON.

Disinfector :

JAS. RISLEY.

Master of Sanatorium :

MICHAEL MOORE.



By order of the Local Government Board, dated March 23rd, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health, shall “ prepare an Annual Report, to be “ made to the end of December in each year, comprising a “ summary of the action taken during the year for preventing “ the spread of disease, and an account of the sanitary state “ of his district generally at the end of the year. The “ report shall also contain an account of the enquiries “ which he has made as to conditions injurious to health “ existing in his district, and of the proceedings in which “ he has taken part or advised under the Public Health Act, “ 1875, so far as such proceedings relate to those conditions; “ and also an account of the supervision exercised by him “ or on his advice, for sanitary purposes over places and “ houses that the Sanitary Authorities have power to “ regulate, with the nature and results of any proceedings “ which may have been so required and taken in respect of “ the same during the year. It shall also record the action “ taken by him or on his advice, during the year, in regard “ to offensive trades, and to factories and workshops. The “ report shall also contain tabular statements (on forms to “ be supplied by the Local Government Board, or to the “ like effect) of the sickness and mortality within the “ district, classified according to diseases, ages, and localities.”

CORPORATION OF WIGAN,  
OFFICER OF HEALTH'S DEPARTMENT,

FEBRUARY 12TH, 1906.

*To the Chairman and Members of the Health  
Committee.*

GENTLEMEN,

I have pleasure in presenting to you my Tenth Annual Report on the health of your County Borough, and for the year 1905.

The death-rate is calculated on a population of 88,306, estimated on July 1st, 1905.

The death-rate for the year is 18·07 per 1,000 of the population, against 21·49 for 1904, a diminution of 3·42.

The infantile deaths number 163 per 1,000 births, whilst that for England and Wales is 152, but we have had 188 per 1,000 births in the previous year.

The total number of deaths from Zymotic diseases is 286, a rate of 3·23 per 1,000 of the population, against 3·14 in 1904. The Diarrhœa rate is 1·57, against 1·68 in the previous year.

We have an increase in the number of deaths in persons over 60 years of age, namely:—287, against 271 in 1904.

We had 3 cases of Small-pox, one in each month of January, February and May. Measles occurred in epidemic form in January, February, March and April, and we have had cases in each month during the year. The number being 1,108, with 60 deaths.

The following Schools or departments were closed with beneficial results:—

St. Stephen's Schools, Whelley.	Closed from 25th January, for 24 days
St. Patrick's Schools, Wigan	„ 9th February, for 31 days
St. George's Schools, Wigan	„ 21st „ for 25 days
St. Michael's Schools, Wigan	„ 25th „ for 28 days
St. Catherine's Schools, Wigan	„ 25th „ for 28 days
St. Paul's Schools, Goose Green	„ 18th March for 33 days
St. Cuthbert's Schools, Pemberton	„ 12th October, for 24 days
Pemberton Colliery Schools	„ 27th „ for 23 days

Scarlet Fever has furnished us during the past year with an increased number of cases, this being chiefly due to our increased population. We have had 325 cases notified, against 191, and only 11 deaths as against 11 last year. The death-rate therefore from Scarlet Fever is  $\cdot 12$ , against  $\cdot 17$  in 1904.

Mr. W. H. Roby resigned in March to accept an appointment in Abram, and his place has not been refilled.

I must again record my thanks for the assistance given me by each member of the staff, particularly to Mr. Sumner, for his careful attention to the details in the Health Department.

To my colleagues in the Medical profession, both in Wigan and neighbourhood, I tender my thanks for their co-operation in preventing the spread of infectious diseases, and also in other matters pertaining to the health of the town.

In conclusion, I must also thank the Chairman, Vice-Chairman, and Members of this Committee for their approval of any suggestions I have made and for their co-operation in carrying out the work of the Health Department.

I am, Gentlemen,

Your obedient servant.

WM. BERRY,

MEDICAL OFFICER OF HEALTH.



PART I.

VITAL STATISTICS.



# REPORT.

—:0:—

## STATISTICAL SUMMARY FOR 1905.

Population estimated July 1st, 1905..... 88,306

*Marriages* are not ascertained for the County Borough.

„ Annual rate per 1,000 of population ditto.

<i>Births</i>	{	Males.....	1486	}	Total.....	2,918
		Females.....	1432			

Annual rate of births per 1,000 of population..... 33·04

Ditto for England and Wales ..... 27·2

Illegitimate births, 131, or 1·48 per 1,000 of population, a percentage of..... 4·4

<i>Deaths</i>	{	Males.....	825	}	Total.....	1,596
		Females .....	771			

Annual rate of mortality..... 18·07

Ditto in England and Wales..... 15·2

Death rate in 76 great towns..... 15·7

Ditto 141 Smaller „ ..... 14·4

Ditto Rural England & Wales 14·9

Excess of registered births over deaths..... 1,322

Total deaths from zymotic diseases..... 286

Annual rate of mortality from zymotic diseases 3·23

Ditto in England and Wales ..... 1·88

Total deaths from diarrhœa ..... 139

Annual rate of mortality from diarrhœa ..... 1·57

Infantile rate (deaths per 1,000 births), 1905.... 163

Ditto for England and Wales..... 128

Deaths of infants under one day old number.... 49

*Acreage.*—With an acreage of 5,082, and a population estimated at 88,306, we have 17·37 persons per acre.

*Population.*—The population estimated at the middle of the year (June 30th, 1905) is 88,306, and this may be taken as fairly correct, in accordance with the number of inhabited houses on July 1st.

*Births.*—The number of births registered during 1905 is 2,918 (males, 1,486 ; females, 1,432), the rate per 1,000 of the population being 33·04. The birth rate, compared with 1904, is 1·55 lower. The illegitimate births, number 131, or 4·4 per cent.

*The Mortality Rate.*—The deaths for 1905 number 1,596 (825 males, 771 females), being an excess of 54 males over females. The rate per 1,000 of the population, per annum, is 18·07 ; in 1904, 21·49 ; thus on a population of 88,306 we have an increase in deaths of 215, over 1904, but the previous rate was on a population of 64,249. There is therefore a decrease in the death rate of 3·42 per 1,000.

The death rate for each quarter is as follows :—

1905.	All Causes.	Zymotics.
1st Quarter	19·03	2·65
2nd „	18·13	2·50
3rd „	19·40	6·37
4th „	16·24	1·49

The zymotic rate shows an increase for 1905 ; it is 3·23. The previous year it was 3·14, showing an increase of ·09, this being due to an increase in the number of deaths from zymotic diseases.

## THE VITAL STATISTICS FOR ENGLAND AND WALES DURING 1905.

### ENGLAND AND WALES, 1905.

	1905.	1904.
Birth rate per 1,000 living	27·2	27·9
Death rate „	15·2	16·2
Seven epidemic diseases per 1,000 living..	1·88	1·94
Infant mortality per 1,000 births	128	146



TABLE I.

## WEEKLY RETURN OF BIRTHS AND DEATHS FOR 1905.

1905. WEEK ENDING.	Deaths from all Causes.	Annual Rate per 1,000.	Deaths from Zymotics.	Zymotic Rate.	Births.	Annual Rate per 1,000.
January 7..	33	19.72	4	2.39	52	31.08
„ 14..	24	14.33	3	1.79	83	49.58
„ 21..	37	22.10	5	2.98	47	28.07
„ 28..	32	19.11	1	.59	52	31.06
February 4..	28	16.71	4	2.38	63	37.61
„ 11..	32	19.09	2	1.19	64	38.18
„ 18..	17	10.14	3	1.78	57	34.00
„ 25..	43	25.64	4	2.38	72	42.93
March 4..	28	16.69	6	3.57	48	28.62
„ 11..	44	26.22	9	5.36	71	42.31
„ 18..	23	13.70	3	1.78	51	30.39
„ 25..	33	19.65	4	2.38	76	45.26
April 1..	41	24.40	10	5.95	66	39.28
„ 8..	35	20.83	9	5.35	57	33.92
„ 15..	27	16.06	7	4.16	50	29.74
„ 22..	31	18.43	7	4.16	81	48.15
„ 29..	42	24.97	5	2.97	50	29.72
May 6..	30	17.83	2	1.18	67	39.83
„ 13..	41	24.36	9	5.34	68	40.40
„ 20..	24	14.25	2	1.18	54	32.06
„ 27..	31	18.40	1	.59	55	32.66
June 3..	28	16.62	2	1.18	54	32.06
„ 10..	20	11.86	1	.59	52	30.86
„ 17..	30	17.79	3	1.77	51	30.24
„ 24..	25	14.82	3	1.77	45	26.69
July 1..	33	19.57	4	2.37	49	29.06
„ 8..	22	13.04	2	1.18	69	40.90
„ 15..	27	15.99	3	1.77	50	29.62
„ 22..	27	15.99	6	3.55	54	31.99
„ 29..	31	18.36	7	4.14	51	30.21
August 5..	39	23.09	18	10.65	51	30.19
„ 12..	45	26.64	25	14.80	55	32.56
„ 19..	44	26.05	14	8.28	55	32.56
„ 26..	29	17.24	14	8.32	44	26.15
Sept'mber 2..	41	24.26	15	8.87	57	33.72
„ 9..	31	18.34	13	7.69	54	31.95
„ 16..	31	18.33	9	5.32	56	33.11
„ 23..	31	18.33	9	5.32	62	36.66
„ 30..	28	16.54	5	2.95	51	30.14
October 7..	28	16.54	4	2.36	56	33.09
„ 14..	43	25.41	5	2.95	56	33.09
„ 21..	26	15.35	4	2.36	57	33.66
„ 28..	22	12.99	3	1.77	46	27.17
November 4..	13	7.67	3	1.77	47	27.74
„ 11..	25	14.74	—	—	49	28.90
„ 18..	21	12.38	4	2.35	34	20.05
„ 25..	34	20.05	2	1.17	61	35.98
December 2..	35	20.63	4	2.35	55	32.42
„ 9..	19	11.19	1	.58	68	40.07
„ 16..	31	18.26	1	.58	50	29.46
„ 23..	35	20.61	—	—	62	36.51
„ 30..	26	15.31	2	1.17	33	19.43

TABLE II.

MONTHLY TABLE OF DEATHS FROM ALL CAUSES  
AND ZYMOTIC DISEASES WITH RATES  
PER 1,000 PER ANNUM.

MONTH.	No. of Deaths from all causes.	Annual Rate per 1,000 living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 living.	Deaths of	
					Infants under 1 yr.	Persons over 60 yrs.
January ...	126	18.81	13	1.93	29	25
February ..	120	17.89	13	1.93	31	25
March.....	128	19.06	22	3.27	34	20
April.....	176	20.93	38	4.51	40	35
May .....	126	18.71	14	2.07	38	19
June .....	103	15.27	9	1.32	22	12
July .....	140	16.59	22	2.60	40	33
August ....	157	23.25	71	10.51	94	11
September .	162	19.16	51	6.03	55	15
October ....	119	17.57	16	2.36	39	27
November ..	93	13.71	9	1.32	21	17
December ..	146	17.20	8	.93	33	38
Totals..	1596	18.07	286	3.23	476	287

TABLE III.

TABLE SHOWING COMPARATIVE STATISTICS BETWEEN WIGAN  
AND OTHER TOWNS DURING 1905.

TOWN.	Population.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death Rate per 1,000 Births.	Respiratory Death Rate.	Phthisis Death Rate.
Accrington . . . .	44,600	20.78	13.43	.65	137	2.42	.67
Birkenhead . . . .	116,040	31.94	15.79	2.05	129	2.93	1.53
Bath . . . . .	50,000	19.7	14.5	1.1	89	2.1	0.82
Blackpool . . . .	55,712	20.30	12.21	1.01	127	1.62	0.92
Bootle . . . . .	63,134	31.8	16.6	2.6	154	..	1.2
Bradford . . . . .	286,799	21.08	15.13	1.45	144	2.80	1.12
B'rtan-on-Trent	52,424	25.4	12.5	0.9	90	1.5	1.25
Bury . . . . .	58,594	21.69	16.43	1.19	146	3.16	1.24
Cardiff . . . . .	180,054	28.54	13.20	1.19	118	2.33	1.28
Carlisle . . . . .	47,920	24.3	16.3	1.3	139	2.7	1.2
Coventry . . . . .	75,134	28.9	14.64	1.49	108	2.16	0.99
Crewe . . . . .	46,578	28.2	13.5	2.1	131	2.3	0.5
Derby . . . . .	122,207	25.5	14.3	1.5	151	2.1	.8
East Ham . . . .	123,381	29.88	13.20	2.3	129	2.24	0.86
Folkestone . . . .	34,770	19.6	10.6	.9	108	1.3	.9
Halifax . . . . .	107,500	19.2	15.09	.88	130	2.6	1.2
Hanley . . . . .	64,667	33.5	19.9	2.8	193	3.2	0.86
Hastings . . . . .	66,820	17.70	12.20	0.81	112	2.18	1.34
Huddersfield ..	94,899	23.85	16.97	1.13	119	3.16	1.27
Kingst'n-'n-H'll	258,127	29.8	16.1	2.34	153	2.74	0.97
Lancaster . . . .	44,570	23.02	12.47	1.52	105	1.77	1.03
Leigh . . . . .	44,020	30.03	16.55	3.1	182	3.3	0.93
Maidstone . . . .	34,225	23.22	15.1	.4	108	2.7	1.95
Oldham . . . . .	140,225	24.3	18.1	2.2	150	3.52	1.47
Plymouth . . . .	116,000	25.48	17.03	1.33	137	3.30	1.21
Reading . . . . .	78,105	25.43	13.08	1.66	118	1.91	1.06
Rochdale . . . . .	86,390	21.8	16.7	1.30	133	..	1.30
South Shields .	109,360	32.01	16.15	1.86	145	2.93	1.23
Stockport . . . .	98,320	27.13	18.21	2.16	167	3.20	1.29
Sunderland . . .	152,659	34.2	18.6	2.3	143	3.8	1.38
Swansea . . . . .	99,530	30.9	16.5	1.26	131	2.75	1.43
Warrington . . .	69,153	32.9	16.9	2.7	147	2.3	1.37
West Bromwich	67,823	31.5	16.7	3.5	150	..	..
W. Hartlepool .	66,744	31.1	16.8	1.64	139	3.68	0.70
<b>WIGAN</b> . . . . .	88,306	33.04	18.07	3.23	163	3.78	1.04
Wolverh'pton..	99,559	28.7	14.8	2.28	136	2.60	0.88
York . . . . .	82,362	27.9	14.6	1.34	130	1.95	1.12



TABLE IV.

DEATH-RATE FOR WIGAN DURING THE LAST TEN YEARS.

1896	.....	23.09	} Average for 10 years, 21.06.
1897	.....	20.99	
1898	.....	18.88	
1899	.....	21.91	
1900	.....	21.95	
1901	.....	22.30	
1902	.....	20.25	
1903	.....	21.69	
1904	.....	21.49	
1905	.....	18.07	

*Infantile Mortality.*—The number of deaths of children under one year is 476, or 163 per 1,000 births, and of children over one year and under five years 296, or 3.35 per 1,000 of the population.

In regard to this infantile mortality there were 49 deaths in children who did not live more than 24 hours, and if we deduct these there would only be 427 deaths, or 146 per 1,000 births; in a large birth rate we necessarily have a larger proportion of premature births.

*Senile Mortality.*—The number of deaths of persons of 60 years of age and over is 287, or 3.25 per 1,000 of population.

NO. OF DEATHS IN DIFFERENT WARDS IN WIGAN, 1905.

Ward.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
1	34	33	27	33	127
2	27	22	23	20	92
3	48	32	39	25	144
4	48	55	40	35	178
5	31	16	23	23	93
6	21	18	21	22	82
7	28	32	46	28	134
8	53	68	60	49	230
9	20	24	28	17	89
10	18	22	14	19	73
11	14	8	13	22	57
12	30	24	26	23	103
13	16	15	18	23	72
14	27	28	48	19	122
Total .	415	397	426	358	1596



## WIGAN CENSUS, 1901

WARD.	Separate Families.	HOUSES.				Tenements with less than five rooms.	PERSONS.		Totals.
		In-habited.	Uninhabited.				Males.	Females.	
			In Occu- pation.	Not in Occupa- tion.	B'ding				
No. 1, or St. George Ward . . . .	959	919	87	17	..	753	2406	2524	4930
No. 2, or Lindsay Ward . . . . .	924	913	22	12	6	592	2310	2472	4782
No. 3, or St. Catharine Ward ..	1234	1193	20	5	..	863	3169	3435	6604
No. 4, or St. Patrick Ward . . . .	1586	1567	46	10	3	954	4714	4470	9184
No. 5, or St. Thomas Ward ...	939	890	42	4	..	703	2394	2451	4845
No. 6, or Poolstock Ward . . . . .	977	950	18	3	4	523	2424	2613	5037
No. 7, or Victoria Ward . . . . .	999	949	33	4	4	688	2440	2586	5026
No. 8, or St. Andrew Ward ...	1684	1662	29	14	29	501	4658	4622	9280
No. 9, or Swinley Ward . . . . .	1386	1368	46	41	14	453	3224	4043	7267
No. 10, or All Saints' Ward ..	709	709	327	28	25	360	1811	1925	3736
Canal Boats . . . . .	..	..	..	..	..	..	60	19	79
Wards not stated . . . . .	..	..	..	..	..	..	..	..	..
Totals . . . . .	11388	11120	670	138	85	6390	29610	31160	60770

Percentage of increase in population, England and Wales  
since Census of 1891 . . . . . 12·15

The preceding period, 1881-91 . . . . . 11·65

Increase in Wigan . . . . . 10·46

# PARLIAMENTARY BOROUGH OF WIGAN.

*Estimated Population 24th July, 1905.*

WARD.	HOUSES.			Estimated Population.
	Building	Empty.	Inhabited.	
No. 1, or St. George Ward ...	—	25	917	5,011
No. 2, or Lindsay Ward .....	—	8	1,004	5,487
No. 3, or St. Catherine Ward..	10	22	1,265	6,913
No. 4, or St. Patrick Ward ...	4	33	1,662	9,083
No. 5, or St. Thomas Ward ...	—	19	860	4,700
No. 6, or Poolstock Ward.....	—	8	1,018	5,563
No. 7, or Victoria Ward .....	4	13	962	5,257
No. 8, or St. Andrew Ward ...	22	35	2,131	11,645
No. 9, or Swinley Ward .....	11	59	1,469	8,028
No. 10, or All Saints' Ward ...	30	18	689	3,715
Totals.....	81	240	11,977	*65,402

\*The average per house inhabited at census 1901 was 5.465 this multiplied by 11,977 gives a total of 65,454.

The figures are taken from the Survey Books of the Wigan Conservative Registration Association, on completion of the Survey on 24th July, 1905, and by permission of Mr. R. Halliwell, J.P., Agent.

## PEMBERTON TOWNSHIP.

WARD.	Inhabited	Empty	Building	Total	Average per House Inhabited	Estimated Population on Census of 1901.
North .....	1,427	9	13	1,449		} 21,664
South .....	1,109	8	—	1,117		
West.....	840	2	1	843		
Central.....	1,099	14	2	1,115		
Total .....	4,475	33	16	4,524		21,664

Through the kindness of Mr. Robert Green.

Average 5 persons per house.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1905 AND PREVIOUS YEARS.  
NAME OF DISTRICT—WIGAN (COUNTY BOROUGH).

Y <sup>E</sup> A <sup>R</sup> .	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.						Deaths of Non- residents Registered in Public Institutions in District.	Deaths of Residents Registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.		
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.						Total Deaths in Public Institutions in District.	Number.	Rate.*
				Number.	Rate per 1,000 Births Regis- tered.	Number.	Rate.*							
1	2	3	4	5	6	7	8	9	10	11	12	13		
1895	57765	2256	39.16	413	187	1317	23.18	244	106					
1896	58340	2144	37.10	400	186	1376	23.84	158	91					
1897	58915	2247	38.58	398	175	1270	21.80	246	116			22.90		
1898	59590	2159	35.70	369	170	1182	19.54	225	133		1387	22.30		
1899	60165	2148	35.36	422	195	1368	22.63	253	158		1379	20.25		
1900	60740	2177	36.00	404	190	1520	25.06	290	142		1251	21.69		
1901	60923	2245	36.40	457	203	1537	24.87	280	152		1359	21.49		
1902	61827	2311	37.42	366	158	1393	22.58	269	147					
1903	62689	2221	35.47	388	174	1511	24.09	313						
1904	64249	2223	34.59	418	188	1528	23.78	301						
Averages for years 1895-1904	60520	2213	36.57	403	182	1400	23.13	257						
1905	88306	2918	33.04	476	163	1717	19.44	277	121		1596	18.07		

\* Rates in column 4, 8, and 13 calculated per 1,000 of estimated population.  
Area of District in acres (exclusive of area covered by water) 5,082. At Census of 1901 the total population of all ages was 82,428; number of inhabited houses 15,095; average number of persons per house 5.4. Institutions within the District receiving sick and infirm persons from outside the District: Workhouse, Infirmary, and Sanatorium. Is the Union Workhouse within the District? Yes.



TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1905  
AND PREVIOUS YEARS.

Name of District—Wigan County Borough.

YEAR.	Population Estimated to middle of each year.	Births Registered.	Deaths at all Ages	Deaths under 1 year.
1895 .....	57,765	2,256	1,317	413
1896 .....	58,340	2,144	1,376	400
1897 .....	58,915	2,247	1,270	398
1898 .....	59,590	2,159	1,182	369
1899 .....	60,165	2,148	1,368	422
1900 .....	60,740	2,177	1,520	404
1901 .....	60,923	2,245	1,537	457
1902 .....	61,827	2,311	1,393	366
1903 .....	62,689	2,221	1,359	388
1904 .....	64,249	2,223	1,381	418
Averages of Years 1895 to 1904.	60,520	2,213	1,370	403
1905 .....	88,306	2,918	1,596	476



TABLE III.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1905.

Name of District—Wigan County Borough.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.							Cases Removed to Hospital.	
	At all Ages.	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards	W. H. Wigan.	Haigh.
Small-pox . . .	3	1	—	1	—	1	—	3	—
Cholera . . . . .	—	—	—	—	—	—	—	—	—
Diphtheria . . .	49	1	16	23	7	2	—	1	—
Membranous Croup . . . .	—	—	—	—	—	—	—	—	—
Erysipelas . . .	92	5	5	5	16	48	13	1	—
Scarlet fever .	325	—	136	177	11	1	—	208	—
Typhus fever.	—	—	—	—	—	—	—	—	—
Enteric fever.	133	—	14	45	27	46	1	91	6
Relapsing fever . . . . .	—	—	—	—	—	—	—	—	—
Continued fever . . . . .	—	—	—	—	—	—	—	—	—
Puerperal fever . . . . .	16	—	—	—	2	14	—	1	—
Plague . . . . .	—	—	—	—	—	—	—	—	—
*Measles . . . . .	1,108	79	755	270	3	1	—	3	—
Phthisis . . . . .	—	—	—	—	—	—	—	3	—
Totals . . . .	1,726	86	926	521	66	113	14	311	6

Mark (H) the locality in which the hospital is situated.

Mark (W) the locality in which the workhouse is situated.

Isolation Hospital—Wigan Sanatorium.

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905.  
Name of District—Wigan County Borough.

CAUSES OF DEATH	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							Total Deaths whether of Residents or non "Residents" in Public Institutions in the District.
	All Ages	Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up-wards	
Measles .....	60	9	50	1	—	—	—	—
Scarlet fever .....	11	—	10	1	—	—	—	—
Whooping-cough .	15	6	9	—	—	—	—	—
Diphtheria and membran. croup	10	1	7	2	—	—	—	—
Enteric fever.....	36	—	6	8	7	15	—	—
Diarrhœa .....	139	107	28	—	—	2	2	—
Puerperal fever...	9	—	—	—	—	9	—	—
Erysipelas .....	6	3	1	—	1	—	1	—
Phthisis (Pulmonary T'culosis)	92	4	20	9	15	43	1	—
Other tubercular diseases .....	37	8	19	3	2	5	—	—
Cancer, malignant disease .....	42	—	1	—	1	31	9	—
Bronchitis .....	147	24	9	1	—	63	50	—
Pneumonia .....	187	45	57	11	13	52	9	—
Premature birth .	54	54	—	—	—	—	—	—
Heart diseases....	83	1	—	4	8	51	19	—
Accidents.....	32	—	9	2	2	15	4	—
Suicides .....	8	—	—	—	—	7	1	—
Rheumatism ....	12	—	—	3	1	6	2	—
Convulsions .....	28	21	7	—	—	—	—	—
Wasting .....	44	35	9	—	—	—	—	—
All other causes..	544	158	54	19	24	176	113	—
All causes ...	1,596	476	296	64	74	475	211	277

STATEMENT OF DEATHS OCCURRING IN WIGAN, BUT NOT BELONGING TO WIGAN

Deaths from	Accidents ..	..	..	..	22
„	Bronchitis ..	..	..	..	5
„	Cancer ..	..	..	..	11
„	Enteric Fever ..	..	..	..	1
„	Heart Affections ..	..	..	..	6
„	Other Diseases ..	..	..	..	58
„	Phthisis ..	..	..	..	4
„	Pneumonia ..	..	..	..	4
„	Rheumatism ..	..	..	..	3
„	Other Tubercular Diseases ..	..	..	..	5
„	Wasting Diseases ..	..	..	..	1
„	Pleurisy ..	..	..	..	1



TABLE V.—INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
<i>All Causes :</i>																	
Certified .....	78	22	17	4	121	42	44	36	17	35	34	30	29	35	23	22	468
Uncertified .....	6	1	...	...	7	...	...	...	...	...	1	...	...	...	...	...	8
<i>Common Infectious Diseases :</i>																	
Measles .....	...	...	...	...	...	...	...	...	...	1	...	2	...	3	3	...	9
Diphtheria: Croup .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Whooping-cough .....	...	...	...	...	...	...	1	...	...	...	2	...	1	...	2	...	6
<i>Diarrhœal Diseases :</i>																	
Diarrhœa, all forms .....	...	...	...	2	2	9	8	11	5	12	11	7	9	13	8	6	101
Enteritis (not T'bercul'us) .....	...	...	...	1	1	2	3	4	3	1	2	...	1	2	...	3	22
Gastritis, Gastro-intestinal Catarrh .....	...	...	1	...	1	...	2	1	...	2	...	1	2	...	...	2	11
<i>Wasting Diseases :</i>																	
Premature Birth .....	40	9	2	...	51	2	...	...	1	...	...	...	...	...	...	...	54
Congenital Defects .....	3	1	2	...	6	1	...	2	...	...	...	1	...	...	...	...	10
Want of Breast-milk .....	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	2
Atrophy, Debility, Marasmus .....	22	4	4	...	30	9	12	3	...	3	8	3	1	2	...	...	71
<i>Tuberculous Diseases :</i>																	
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	2	...	...	1	2	1	...	...	6
Tuberculous Peritonitis :																	
Tabes Mesenterica .....	...	...	...	...	...	1	...	1	...	...	2	1	...	1	...	...	6
Other Tuberculous Dis'ses .....	...	...	...	...	...	...	1	...	...	...	...	1	...	2	1	...	5
Erysipelas .....	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	3
Syphilis .....	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	2
Meningitis (not T'rculous) .....	...	...	1	...	1	...	1	...	...	3	1	...	2	2	1	1	12
Convulsions .....	2	2	1	...	5	5	4	1	...	2	3	2	3	...	1	...	26
Bronchitis .....	1	3	...	1	5	1	4	4	3	2	...	1	1	1	...	3	25
Pneumonia .....	...	...	1	...	1	2	6	5	2	4	4	5	4	6	2	4	45
Other Causes .....	16	3	4	...	23	8	1	4	1	5	2	4	3	2	4	2	59
Totals .....	84	23	17	4	128	42	44	36	17	35	35	30	29	35	23	22	476

District of Wigan.

Births in the year—Legitimate 2,787.

Illegitimate 131.

Deaths from all Causes at all Ages 1,596.

Population (estimated to middle of 1905) 88,306.

List of Streets in which Deaths from the following diseases have occurred:—

Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total
Alliance Street	1												1	1
Altham's Yard	1									1				1
Arundel Street	2												3	3
Ascroft Street	4									1				1
Anderton Street	4						1			4		2	6	13
Ashton Street	4							1					3	4
Ashcroft's Yard	5												1	1
Adelaide Street	5									1			5	6
Acton's Walk	5												2	2
Ashton's Yard, Princess Street	5												2	2
Acton's Entry	7												3	3
Appleton Street	7												1	1
Andrew Street	8												1	1
Ashland Avenue	9									1			1	2
Atherton Street	10					2		1	2				1	6
Albert Street	12						1		1				7	9
Alexandra Street	12												1	1
Alker Street	12												2	2
Alfred Street	14							2					2	4
Algernon Street	14												1	1
Arthur Street	14						1						2	3
Ash Street	14												1	1
Bold Street	1												1	1
Barlow's Yard, Lr. Morris Street	1												1	1
Boyswell Lane	1							1					9	10
Burlington Street	2												1	1
Bank Terrace	2												1	1
Bottling Wood	2									2			4	6
Bradshaw Street	2					1			2				2	5
Baron Street	3												1	1
Bedford Street	3												1	1
Bolton Street	3										1		6	7
Birkett Bank	3									1				1
„ Street	3												2	2
„ Bank	4												2	2
Bankes Street	4		1										2	3
Bryham Street	4												1	1
Brown Street	4												1	1
Brookhouse Street	4												4	4
Baldwin Street	4												2	2
Brown's Yard, Queen Street	5								1					1
Barnes' Court, Queen Street	5							1						1
Bradford Place	5						1		1		1		3	7
Bridge Street	5						1		1				5	7
Brook Street	6												1	1
Byrom Street	6		1						1				7	9
Byron Street	6												2	2
Baker Street	6							1					1	1
Bywater Street	6								1				1	1
Barton's Terrace	6												2	2
Brown Street	7												2	2
Bridge End	8						1							1
Benson's Yard, Gidlow Lane	8													
Buckley Terrace	8								1					
Beech Hill Lane	8									2				3
Barnsley Street	8								2	1				6
Beech Hall Street	8						1							3
Beresford Street	8									1				1
Buckley Houses	9													
Bridgeman Terrace	9									1				
Brock Mill Lane	9							1						
Bishopgate	10													
Bailey's Court	10							2		1				3
Barton Street	11													
„ Fold	11								1					1
Brickcroft, Fleet St.	11													
Bridgewater Street	12													
Bedford Street	13								1					1
Burland's Yard, Orm: Road	12													
Billinge Road	13													
Bentinck Street	14			1										
Back Sydney Street	14							2	4			1	4	12
Brackley Street	14													
Brook Street	14							1	1					8
Church Street	1													
Castle Street	2													
Crawford Terrace	2													
Coop Street	2													
Cumberland Street	3													
Caunce Street	3								1					
Catherine Street	3							1	2	2				6
„ Terrace	3													
Church Grove	3													
Cecil Street	3													
Cambridge Street	4								1	3				4
Chancery Street	4													
Church Terrace	4													
Caroline Street	5								2					
Chapel Street	5							1		2		2		8
Cross Street	5								3					2
Chapel Lane	5													
„	6													
Chadwick Street	6													
Cudworth Street	6													
Corporation Street	6													
Crawford Road	6													
Coronation Street	6													
Clayton Street	7													
Clare Street	7													
Chadwick's Square	8													
Canal Street	8													
Charles Street	9													
Coppull Lane	9													
Cherry Croft	9													
Chapel Lane	10													
Crawford Street	10													



Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total
Brook's Yard,														
Hallgate	10									1				1
Barr Lane	11												3	3
Chapel Street	11									2			4	6
Church Street	11									1				1
City Road	11									1			2	3
Cawdor Street	12												1	1
Carlton Street	14								1				1	2
Clapgate Lane	14						2			2				4
Court, Holt St.	14					1								1
Court,														
Thompson Street	14												1	1
Douglas Terrace	1												4	4
Derby Street	2												1	1
Dorset Street	3			3									3	3
Darlington St. East	4			1					1	1			5	8
Dean Street	4									1				1
Douglas St. East	4												2	2
Driving Lane	5			1						1				2
Dobson's Yard,														
Princess Street	5												1	1
Dobb's Fold	7									1				1
Dawber's Terrace	7												1	1
Delph Street	8		1										2	3
Diggle Street	8												2	2
Dicconson Street	9		2							1			1	4
Duke Street	9								1				3	4
Douglas Street	10								1	2			1	4
Darlington Street	10								1					1
Dorning Street	10									1			3	4
Dickinson's Yard,														
Ormskirk Road	12												1	1
Douglas Street	12			1					1				3	5
Duke Street	14							1	1	3			4	9
Every Street	1												1	1
Eckersley Street	2												2	2
E's Street	2									1			1	2
Elizabeth Street	3									1			2	3
Edwin Street	4											1		1
Egerton Street	5												1	1
Eleanor Street	6												2	2
Ethel Street	6												1	1
Edith Street	7									1				1
Earl Street	9												1	1
Engine Fold	11									1			1	2
Ellesmere Road	13								2				2	4
Enfield Street	13			2						5	2	11	20	
Foundry Street	1									1				1
Florence Street	3								1	2			1	4
Farrimond's Yard	3												1	1
Florrie Street	3												2	2
Fowden Street	5									1			1	2
Frith Street	6								1	2			1	4
Fletcher Street	7									1				1
Frog Lane	8			2									3	5
Francis Street	8												1	1
Field Street	8									1			2	3
Foster Street	8													
Folly	9													
Foy Street	10													
Frog Lane	10													
Fleming's Yard,														
Hallgate	10													
Fitzadam Street	10													
Fleet Street	11								1	3		1	1	6
Fleming's Yard,														
Harrison Street	12												1	1
France Street	12													
Greenough Street	1													
Greenough's Yard	1								1					
Greenough Street	2								1	1				
Great Acre	2												1	1
Golborne Street	3								2	1			1	4
Gaskell Street	3												2	2
Gee Street	4								2				1	3
Gilroy Street	4												1	1
Grundy's Yard,														
Hardybutts	4									1				1
Greenough's Row	4									1			1	2
Gordon Street	4												1	1
Gerrard Street	6												1	1
Granville Street	6												4	4
Great George Street	7								1	1	1	1	7	11
Gidlow Lane	8						2		1	4	1	1	8	17
Glebe End Street	8												1	1
Golden Cross Yard	9								1				1	2
Grayson's Yard	9									1			2	3
Greenbank Cottages	10												1	1
Gibraltar Street	11												1	1
Gore Street	11												1	1
Grosvenor Street	12									1			1	2
Gore's Court,														
Pem: Valley	13												1	1
Grafton Street	14								1				1	2
Hunter's Yard,														
Upper Morris St.	1													
Harrison's Yard,														
Lime Street	1			1										1
Harrison's Square,														
Orchard Street	1								1		1		2	4
Hardy's Yard,														
Whelley	2													
Howard Street	2									1			2	3
Hen Street	3												1	1
Heaton's Yard,														
Scholefield Lane	3												1	2
Holland Street	3												3	4
Higham Street	4		1				1			2			4	8
Hunt Street	4								1	1				2
Hardybutts	4								1	1	6		7	15
Hambleton Street	4								1				1	3
Hodson Street	5												1	1
Henhurst Bridge	6												1	1



Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total
Herbert Street	7								1			1	3	5
Howard's Yard	7									1				1
Hill Street	8												1	1
Hey Street	8								1	1				2
Horsefield Street	8									1				1
Holt Street	8									1			3	4
Hodges Street	8						1			1		1	4	7
Holme Street	9												1	1
High Street	9								1			1		2
Harrogate Street	10												1	1
Hope Street	10									1				1
Hallgate	10									1			6	7
Hopwood Street	12						1	1					1	3
Highfield Street	13												1	1
Holt Street	14								1		1		1	3
Isabella Street	3									1			2	3
Ironmonger Lane	5									1				1
Ingram Street	8						1					1	2	4
Jane Street	3												1	1
John Street	4									3			3	6
Johnson Street	4												1	1
Jordan's Yard, Lyon Street	7								1					1
Jackson's Yard, Appleton Street	7												1	1
Jackson's Row	9						1							1
Johnson Street	11									1				1
Joynson Terrace	11									1				1
Kay Street	1									2			1	3
Kendrick Street	3									1			3	4
Kirkless Street	3						1	1	2					4
Kendrick Street	3									1			3	4
Kirkless Street	3						1	1	2					4
Kent Street	4									1				1
Kearsley Street	8						1						1	2
Kendal Street	8									1			2	3
Kenyon Road	9												3	3
Kildare Street	12												1	1
Knowles Avenue	13												1	1
Latham's Yard, Millgate	1									1				1
Low Street	1												2	2
Lower Morris Street	1								3	1			6	10
Lime Street	1			1			1	1	5				9	17
Lamb Street	2												1	1
Lindsay Street	2								1					1
Longshoot	2		1				2	1	1				4	9
Linney Street	3						2	1	5				3	11
Lorne Street	3									3			2	5
Leader Street	3									3				3
Lowe's Square, Hardybutts	4									1			1	2
Leigh Street	4								1					1
Lyon's Yard, Ironmonger Lane	5			1									1	2
Letterewe Street	6										1		1	2
Lea Street	7		1											
Leeds Street	7													
Lyon Street	7									1	1			3
Lancaster's Entry	7													
Layland Street	8													
Lower St. Stephen Street	8													
Land Street	8													
Little London	9													
Lord Street	9													
Library Street	10													
Leopold Street	13			1										
Little Lane	13													
„	14													
McEwan's Yard	1													
Millgate	1													
Marsh Lane	1													
Mount Street	2													
Molyneux Street	2													
McCormick Street	4													
Manchester Place	4													
Milk Street	5													
Melverley Street	6													
Milton Street	6													
Miry Lane	7						2							
Mason Street	7		1											
Miry Lane	8													
Mort Street	8													
Moss Street	8		1											
Moorfield Street	8													
Mesnes Street	9													
Monument Entry	9													
Mariebonne Place	9													
Millgate	10													
Market Street	10													
Marsden Street	10													
Marsden's Court, Hallgate	10													
Moss Street	11													
Marsden Street	12		1											
Marsh Green	12													
Mitchell Street	12													
Marsh Street	14													
Monk's Yard, Warrington Road	14						1							
Neville Street	3													
New Street	8													
New Street	8													
New Square	9			1										
New Lodge	9													
New Market Street	10													
New Row	11													
Normanby Street	11													
Noble Street	12													
Northumberland St.	14			1			1	1	2				3	8



Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total	Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total
Orchard Street .....	1	..	..	..	..	..	..	..	..	..	..	..	4	4	Robin Hood Yard ..	10	..	..	..	..	..	..	..	..	1	..	..	1	2
Oxford Street .....	2	..	..	..	..	..	..	..	1	..	..	..	5	6	Richmond Hill .....	11	..	..	..	..	..	..	..	..	..	..	..	1	1
Osborne Street .....	2	..	..	..	..	1	..	..	..	..	..	..	1	2	Regent Street .....	14	..	..	..	..	..	..	1	1	..	..	..	1	3
Oak Street .....	4	..	1	..	..	..	..	..	..	..	..	..	1	1	Richmond Street ..	14	..	..	..	..	..	..	..	..	..	..	..	1	1
Ormandy's Houses ..	6	..	..	..	..	..	..	1	1	1	..	..	3	3	Ship Yard, Millgate	1	..	..	..	..	..	..	..	..	..	..	1	1	
Old Fold .....	11	..	..	..	..	1	..	..	..	1	..	..	2	2	Scholes .....	1	..	..	..	..	..	..	1	..	..	..	1	2	4
Ormskirk Road .....	11	..	..	..	..	..	..	2	..	2	..	..	5	9	School Lane .....	1	..	..	..	..	..	..	1	2	..	..	..	..	3
„ .....	12	..	..	..	..	..	..	1	1	..	1	..	9	12	School Street .....	1	..	..	..	..	..	2	..	3	..	..	4	9	
„ .....	13	..	..	..	..	..	..	..	..	2	..	..	11	13	Standishgate .....	1	..	..	..	..	..	..	..	..	..	1	..	1	
Primrose Hill .....	2	..	..	..	..	..	..	..	..	..	..	..	1	1	Swan Terrace .....	1	..	..	..	..	..	1	..	..	..	..	1	2	
Perch Street .....	3	..	..	..	..	..	..	..	..	..	..	..	1	1	Scholes .....	2	..	..	..	..	..	..	2	..	..	..	3	5	
Platt Lane .....	3	..	..	..	..	..	..	1	1	1	1	..	8	12	Salmon Street .....	3	..	..	..	..	..	..	1	..	..	..	1	2	
Pendlebury's Yard,															Seed Street .....	3	..	1	..	..	..	..	..	..	..	..	2	3	
St. Patrick Street	4	..	..	..	..	..	..	..	..	1	..	..	1	1	Scholes .....	3	..	..	..	..	..	..	2	..	..	..	2	4	
Pearce's Yard,															Stanley Square .....	3	..	..	..	..	..	..	1	..	..	..	1	2	
Bridge Street	5	..	..	..	..	..	..	..	..	..	..	..	1	1	„ Street .....	3	..	..	..	..	..	..	4	..	..	..	1	5	
Princess Street .....	5	..	..	..	..	..	..	1	..	..	1	..	2	4	Scholefield Lane ..	3	..	..	..	..	..	..	1	4	..	..	5	10	
Potter's Square,															Swift's Square,														
Princess Street	5	..	..	..	..	..	..	..	..	2	..	..	2	4	Scholefield Lane	3	..	..	..	..	..	..	1	..	..	..	1	2	
Pipe Shop Yard .....	6	..	..	..	..	..	..	..	..	1	..	..	1	1	Scholefield Lane ..	4	..	..	..	..	..	..	..	..	..	..	2	2	
Poolstock .....	6	..	..	1	..	..	..	..	..	1	..	..	4	6	St. Patrick Street ..	4	..	..	..	..	..	1	2	..	..	..	4	7	
Pool Street .....	6	..	..	..	..	..	..	..	..	1	..	1	2	4	Scholes .....	4	..	..	..	..	..	..	..	..	..	..	2	2	
Pottery Street .....	6	..	..	..	..	..	..	..	..	1	..	..	1	1	Stuart Street .....	4	..	..	..	..	..	..	2	..	..	..	3	5	
Piper's Alley .....	6	..	..	..	..	..	..	..	..	..	..	..	1	1	Spring Street .....	4	..	..	..	..	..	1	1	5	..	..	2	9	
Peet Street .....	6	..	..	..	..	..	..	..	..	1	..	..	4	5	Silver Street .....	4	..	..	..	..	..	..	3	..	..	..	6	6	
Pitt Street .....	7	..	..	..	..	..	..	1	1	..	..	..	2	2	„ Terrace .....	4	..	..	..	..	..	..	..	..	..	..	1	1	
Pearl Street .....	8	..	..	..	..	..	..	..	..	..	..	..	1	1	Sovereign Road .....	4	..	..	..	..	..	1	..	..	1	..	2		
Prescott Street .....	8	..	..	..	..	..	1	4	2	..	..	..	5	12	Shared Street .....	4	..	..	..	..	..	..	1	..	..	..	2	3	
Park Road .....	8	..	..	..	..	..	..	..	..	..	..	..	2	2	St. Thomas Street ..	5	..	..	..	..	..	..	1	..	..	..	1	1	
Pagefield Street .....	8	..	1	..	..	..	..	..	..	1	..	..	2	4	St. James Terrace ..	6	..	..	..	..	..	..	..	..	..	..	1	1	
Powell Street .....	9	..	..	..	..	..	..	..	..	..	..	..	1	1	Seven Stars Road ..	6	..	..	..	..	..	..	..	..	..	..	1	1	
Powell's Yard,															Snape Street .....	7	..	..	..	..	..	..	1	..	..	..	..	1	
Hallgate ..	10	..	..	..	..	..	..	..	..	..	..	..	1	1	Sharpe Street .....	7	..	..	..	..	..	..	1	..	..	..	..	1	
Pemberton Valley ..	13	..	..	..	..	..	..	..	..	..	..	..	1	1	Swann Street .....	7	..	..	..	1	1	1	1	..	..	5	9		
Parkinson's Yard,															Stratford Street .....	8	..	..	..	..	..	..	..	..	..	..	2	2	
Warrington Road	14	..	..	..	..	..	..	..	..	1	..	..	1	1	Stopforth Street ..	8	..	..	..	..	..	..	..	..	..	..	1	1	
Park Lane .....	14	..	..	..	..	..	1	..	..	..	..	..	1	1	Second Avenue .....	8	..	..	..	..	..	..	2	..	..	..	1	3	
Poolstock Lane .....	14	..	..	..	..	..	..	2	5	..	..	..	6	13	Swinley Street .....	9	..	..	..	..	..	..	..	..	..	..	1	1	
Princess Street .....	14	..	..	..	..	..	..	2	..	..	..	..	2	4	„ Lane .....	9	..	..	..	..	..	..	..	..	..	..	3	3	
Queen Street .....	5	..	..	..	..	..	..	2	2	..	..	..	3	7	Standishgate .....	9	..	..	..	..	1	..	..	..	..	..	5	6	
Queen's Hotel Yard	7	..	..	..	..	..	..	..	..	..	..	..	1	1	Shaw Street .....	9	..	..	..	..	..	1	..	..	..	..	2	3	
Queen Street .....	13	..	..	..	..	..	..	2	..	..	..	..	1	3	Scarisbrick Street ..	9	..	..	..	..	..	..	1	..	..	..	..	1	
Rigby's Yard,															Smithy Yard,														
Scholes	1	..	..	..	..	..	3	..	4	..	..	..	6	13	Wigan Lane	9	..	..	..	..	..	..	..	..	..	..	1	1	
Russell Street .....	1	..	..	..	..	..	..	..	..	..	..	..	2	2	Saracen's Head														
Regent Street .....	2	..	..	..	..	..	..	..	..	..	..	..	3	3	Yard	9	..	..	..	..	..	..	..	..	..	..	1	1	
Roscoe Street .....	4	..	..	..	..	..	1	..	1	..	..	..	2	2	Stirling Street .....	9	..	..	..	..	..	..	2	..	..	..	1	3	
Rupert Street .....	4	..	..	..	..	..	..	..	..	..	..	..	3	3	Shelmerdine Street	10	..	..	..	..	..	1	..	..	..	..	1	2	
Riley's Yard,															Spring Gardens .....	10	..	..	..	..	..	..	1	..	..	..	1	2	
Queen Street	5	..	..	..	..	..	..	1	..	..	..	..	2	3	Swift's Yard,														
Ryland's Street .....	8	..	..	..	..	..	..	..	..	..	..	..	1	1	Millgate	10	..	1	..	..	..	..	..	..	..	1	..	2	
Railway Street .....	8	..	..	..	..	..	..	..	..	..	..	..	1	1	Silver Street .....	11	..	..	..	..	..	..	..	..	..	..	1	1	
Ratcliffe Street .....	8	..	..	..	..	..	..	..	1	..	..	..	2	3	Smethurst Lane .....	11	..	..	..	..	..	..	1	..	..	..	..	1	
Rainford's B'dings	9	..	..	..	..	..	1	1	..	..	..	..	1	3	Sarginson Street ..	12	..	..	..	..	..	..	1	..	..	..	6	7	
Rodney Street .....	10	..	..	..	..	1	..	..	..	..	..	..	1	1	Scot Lane .....	12	..	1	..	..	..	1	3	..	..	..	9	14	
Richmond Street ..	10	..	..	..	..	..	..	1	..	..	..	..	1	2	Soho Street .....	12	..	..	..	..	..	..	1	..	..	..	3	4	



Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total	Street	Ward	Small-pox	Scarlet	Enteric	Typhus	Diphtheria	Whoop Cough	Measles	Diarrhoea	Pulmonary	Rheumatism	Cancer	Others	Total
Stanley Street.....	12	..	..	..	..	..	..	..	1	..	..	..	1	1	Worsley's Yard,														
Swift Street.....	12	..	..	..	..	..	..	..	..	..	..	..	2	2	Rupert Street	4	..	..	..	..	..	..	..	1	..	..	..	1	1
Schofield's Houses ..	13	..	..	..	..	..	..	..	..	..	..	..	2	2	Warrington Lane .	4	..	..	..	..	..	..	1	..	..	..	6	7	
Smethurst Street ..	13	..	..	1	..	..	..	..	..	..	..	..	1	1	Wallgate .....	5	..	..	..	..	..	..	1	..	..	..	..	1	1
Smithy Brook .....	14	..	..	..	..	..	..	..	1	1	..	..	1	1	Woods Street .....	5	..	..	..	..	..	..	1	..	..	..	2	3	
Sydney Street .....	14	..	..	..	..	..	..	1	1	1	..	..	2	2	„ Grove .....	5	..	..	..	..	..	..	..	..	..	..	1	1	
Turner Street .....	2	..	..	..	..	..	..	..	1	1	..	..	2	3	Warrington Lane														
Teck Street .....	4	..	..	..	..	..	..	..	2	2	..	..	1	3	Terrace	4	..	..	..	..	..	..	..	..	..	..	1	1	
Tipping Street .....	6	..	..	..	..	..	..	..	1	1	..	..	1	2	Wood Street .....	5	..	..	..	..	1	..	..	..	..	..	2	3	
Tickle Street .....	7	..	..	..	..	..	..	1	1	1	..	..	1	1	William Street .....	5	..	..	..	..	..	..	..	..	..	..	1	1	
Taylor Street .....	7	..	..	..	..	..	..	3	3	3	..	..	2	5	Wallgate .....	6	..	..	1	..	..	..	1	..	..	1	2		
Throstle Nest															Walmesley Avenue.	6	..	1	..	..	..	1	..	..	..	..	2		
Avenue	8	..	..	..	..	..	..	..	1	1	..	..	2	3	Wignall Street .....	6	..	..	..	..	..	..	2	..	..	1	3		
Tunstall Lane .....	13	..	..	..	1	..	1	1	3	3	..	..	1	6	Walmer Street .....	6	..	..	..	..	..	..	1	..	..	5	6		
Taylor's Yard,															Wilcock Street .....	7	..	..	..	..	..	3	1	..	..	..	4		
Little Lane	14	..	..	..	..	..	..	..	..	..	..	..	1	1	Wallgate .....	7	..	..	..	..	..	1	..	..	..	5	6		
Thompson Street ..	14	..	..	..	..	..	..	..	..	..	..	..	2	2	Wal's Yard, Lea St.	7	..	..	..	..	..	1	..	..	..	..	1		
Thorn Street .....	14	..	..	..	..	..	1	..	..	..	..	..	1	1	Waddington's Yard														
Turner's Yard,															Great George St.	7	..	..	..	..	..	..	..	..	..	1	1		
Warrington Road	14	..	..	1	..	..	..	..	..	..	..	..	2	3	Woodhouse Lane ..	8	..	1	..	..	..	..	1	..	10	12			
Upper Morris Street	1	..	..	..	..	1	1	1	4	1	5	12			Wrightington St. ..	9	..	..	..	..	..	..	..	..	..	1	1		
Union Street .....	4	..	..	..	..	..	..	1	1	1	2				Wigan Lane .....	9	..	..	..	..	..	..	3	..	7	10			
Union Workhouse ..	8	..	2	..	..	..	22	7	54	85					Warnford Street ..	9	..	..	..	..	..	1	..	..	1	2			
Upper St. Stephen															Wood's Yard,														
Street .....	8	..	..	..	..	..	..	..	..	2	2				Duke Street	9	..	..	..	..	1	..	..	..	..	1			
Upp'r Dicconson St.	9	..	1	..	..	..	..	..	1	1	2				Wright's Yard,														
Vaughan Street ...	2	..	..	..	..	1	..	..	3	4					Wigan Lane	9	..	..	..	..	..	..	..	..	1	1			
Vine Street .....	2	..	1	..	..	..	..	..	1	2					Wall's Yard,														
Von Blucher Square	3	..	..	..	..	..	..	..	1	1					Great George St.	7	..	..	..	..	..	1	..	..	1				
Vauxhall Road ...	4	..	..	..	..	..	1	..	1	2					Wiend .....	10	..	..	..	..	..	1	..	2	3				
Vine Grove .....	5	..	..	..	..	..	..	1	1	2					Wallgate .....	10	..	..	..	..	..	..	..	..	1	1			
Victoria Street .....	5	..	1	..	..	1	3	..	2	7					Wardley Street ...	11	..	..	..	..	..	..	..	..	4	4			
Vere Street .....	7	..	..	..	..	..	..	..	3	3					White Street .....	11	..	..	..	..	..	..	..	1	1	2			
Victoria Street .....	12	..	..	..	..	..	..	..	4	4					Woodford Street ..	11	..	..	..	..	..	..	..	..	3	3			
Walsh's Yard,															Warrington Road..	12	..	1	..	..	2	3	..	5	11				
School Street	1	..	..	..	..	..	1	..	1	1					Wenlock Street....	12	..	..	..	..	..	..	..	..	1	1			
Withnall Street ...	1	..	..	..	..	..	..	..	1	1					Wilshaw Street ...	12	..	..	..	..	..	..	..	..	1	1			
Wood's Square,															Wilde's Houses,														
Lime Street	1	..	..	..	..	..	..	..	2	2					Billinge Road	13	..	..	..	..	..	..	..	..	1	1			
Windmill Street ...	1	..	..	..	1	..	..	..	1	2					Warrington Road..	14	..	..	..	..	2	3	4	..	8	17			
Water Heyes T'rr'ce	2	..	..	..	..	..	1	..	1	1					Yates' Yard,														
Windsor Street ...	2	..	1	..	..	1	..	..	2						Wallace Lane	2	..	..	..	..	..	..	..	..	1	1			
Whelley .....	2	..	1	..	1	..	..	..	6	8					Yates' Street.....	7	..	..	..	..	1	3	..	2	6				
Wright Street .....	2	..	..	..	..	1	..	1	1	2					York Street .....	7	..	..	..	1	..	..	..	7	8				
Wallace Lane .....	2	..	..	..	..	..	..	..	1	1					„ „ East ..	7	..	..	..	..	..	..	..	1	1				
Whelley .....	3	..	..	..	1	1	1	1	5	8					Wright's Yard,														
Willam Street .....	3	..	..	..	..	1	1	1	1	3					Fleet Street	11	..	1	..	..	..	..	..	..	1				
Well Street .....	3	..	..	..	..	2	..	..	1	3					Walthew House														
Wellington Street..	4	..	..	..	..	1	..	..	3	4					Lane	11	..	..	..	..	1	..	..	1					



**PART II.**

*THE ZYMOTIC DISEASES.*

*CONSTITUTIONAL DISEASES.*

*LOCAL DISEASES.*

*INQUESTS.*



## CAUSES OF DEATH.

### THE ZYMOTIC DISEASES.

The Mortality from the principal zymotic diseases, namely, Small Pox, Scarlet Fever, Measles, Whooping Cough, Typhus, Enteric Fever, Puerperal Fever, Diphtheria, and Diarrhœa, gives us a rate of 3·23 per 1,000 of the population, against 3·14 in 1904.

The deaths numbered 286.

The zymotic rate 3·23 is made up as follows :—

#### DEATHS PER 1,000.

	1905	1904
Small Pox .....	..	.015
Scarlet Fever .....	.12	.17
Measles .....	.67	.35
Whooping Cough .....	.16	.52
Typhus .....	..	..
Enteric .....	.40	.24
Diphtheria .....	.11	.062
Diarrhœa .....	1.57	1.68
Puerperal .....	.10	.062
Erysipelas .....	.067	.015

The zymotic rate during each of the four quarters was :—

	1905	1904
1st Quarter .....	2.65	1.83
2nd „ .....	2.50	.82
3rd „ .....	6.37	6.66
4th „ .....	1.49	3.13

#### TABLE OF ZYMOTIC DISEASES.

	Notified	Died.	Case Mortality per cent.
Small Pox .....	3	..	..
Scarlet Fever .....	325	11	3.38
Enteric Fever .....	133	36	27.06
Diphtheria .....	49	10	20.40
Measles .....	1108	60	5.41
Whooping Cough ...	..	15	..
Diarrhœa .....	..	139	..
Puerperal Fever ...	16	9	56.25
Erysipelas .....	92	6	6.52

## DEATH RATES. 1905.

Disease.	No. of Deaths.	Rate.
Small Pox . . . . .	..	..
Measles . . . . .	60	.67
Scarlet Fever . . . . .	11	.12
Diphtheria and Croup . . . .	10	.11
Whooping Cough . . . . .	15	.16
Enteric Fever . . . . .	36	.40
Erysipelas . . . . .	6	.067
Septicæmia . . . . .	..	..
Puerperal Fever . . . . .	9	.10
Diarrhœa . . . . .	139	1.57
Phthisis . . . . .	92	1.04
Other Tubercular Diseases .	37	.41
Bronchial Diseases . . . . .	147	1.66
Pulmonary Diseases . . . . .	187	2.11
Wasting Diseases of Infants	44	.49
Convulsive „ „	28	.31
Cancer . . . . .	42	.47
Rheumatism . . . . .	12	.13
Diseases of Heart . . . . .	83	.93
Other Diseases . . . . .	638	7.22
Total . . . . .	1596	18.07

3.78

Number of notifications is compared with other years :—

Disease.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Small Pox . . . . .	2	91	33	0	0	0	0	0	4	66	2	3
Typhus . . . . .	34	33	20	1	0	0	0	0	0	0	0	0
Scarlet . . . . .	359	161	151	191	420	245	484	264	557	362	191	325
Enteric . . . . .	68	64	101	64	93	173	104	71	76	51	56	133
Continued . . . . .	32	29	2	0	0	0	0	0	0	0	0	0
Diphtheria . . . . .	10	13	10	23	12	13	20	49	58	38	9	49
Puerperal . . . . .	7	5	7	7	4	4	4	8	10	5	8	16
Cholera . . . . .	0	0	0	1	0	0	0	0	0	0	0	0
Erysipelas . . . . .	0	0	0	0	0	0	39	65	65	51	47	92
Mem. Croup . . . . .	0	0	0	0	0	0	0	0	2	0	0	0
Total . . . . .	512	396	324	287	529	435	651	457	772	573	313	618



## Analysis of Notifications :—

1905.	Jan.	Feb.	Mar	Apl.	May	Jun.	July	Aug.	Sept	Oct.	Nov	Dec.	Ttal
Small Pox .	1	1	..	..	1	..	..	..	..	..	..	..	3
Scarlet ....	22	18	31	29	49	33	25	18	16	34	23	27	325
Typhus ....	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric ....	4	12	6	2	9	4	5	16	31	12	21	11	133
Continued .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria .	9	7	4	3	2	4	5	2	2	5	3	3	49
Puerperal ..	5	3	1	1	1	2	..	..	2	..	1	..	16
Erysipelas .	5	6	14	6	14	7	10	8	8	4	5	5	92
Cholera ....	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	46	47	56	41	76	50	45	44	59	55	53	46	618

## SMALL POX.

I am pleased to note that we have had only three cases notified and in the Decker Hospital.

The prompt measures which we enforced proved successful in preventing further spread.

Case I.—J. F., male,  $1\frac{4}{12}$  years of age, removed on January 18th. Discharged 10th February. Unvaccinated. Traced infection from Barnsley.

Case II.—E. F., male, 25 years of age, removed on February 4th, discharged February 17th. Vaccinated in Infancy, 3 marks; infection from 1st Case. Occupation, Labourer.

Case III.—A. B., female, 7 years of age, removed on May 5th, discharged May 19th. Vaccinated in Infancy; probable infection from Bolton. Patient, school girl.

# VACCINATION RETURNS, 1904—1905.

The following Vaccination Returns have been supplied to me by the Vaccination Officer, Mr. R. Halliwell, J.P. :—

	Jan. to June, 1905.	The whole of 1904.
Births Registered .....	1122	2198
Successfully Vaccinated .....	883	1751
Insusceptible .....	..	10
Exemptions, section 2, 1899 .	2	24
Died Unvaccinated .....	146	300
Postponed by Certificates ....	15	10
Left Town and Reported to Others .....	5	7
Remainder cannot Trace ....	26	51
Refusals, and not Accounted for .....	45	45

Total number of Successful Vaccinations, all ages, in 1904	1760
„ „ „ 1905	1868
Deaths of Infants under 12 months in 1902 .....	368
„ „ 1903 .....	399
„ „ 1904 .....	405
„ „ 1905 .....	385

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In reference to the prevention of Small Pox,  
I wish to quote the following :—

## VACCINATION.

In a leading article on the epidemic of Small-pox in Dewsbury the following remarks are made:—Finally, we wish to call attention to one fact which appears to contain in itself a severe rebuke to some medical men. Though in the Borough of Dewsbury no vaccinated child under ten years old was attacked by Small-pox, yet from some neighbouring locality a child between four and five years old, technically vaccinated, was admitted to the hospital suffering, not only from small-pox, but from fatal small-pox. Regarding this case Dr. Ashcroft writes that there was only one small cicatrix one-sixteenth of a square inch in area and practically without foveation, and adds that “the mother states that she insisted on only having one mark made.” No medical man in this country should accede to any such maternal request. He ought, as a matter of honour, to do vaccination properly or leave it alone altogether. Before the days of the so-called “conscience clause” there might conceivably be some excuse for yielding to parental solicitation in this matter, but since 1898 it has always been open to the medical man to tell the parents that if vaccination is to be done at all it should be well done, and if they object to it being well done, they can get out of the difficulty by obtaining an exemption certificate. Accepting the facts as stated, medical pliancy in this Dewsbury case has been followed by a death from variola and has furnished to anti-vaccination agitators an opportunity for stating that a child certified to have been vaccinated successfully was attacked by and died from small-pox within about two years of its alleged protection.

Every member of the medical profession should make it his own personal duty to see that in his practice no such case shall ever occur.

*(Extract from the “Lancet,” September 23rd, 1905).*



27 APR. 1906

## PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS,

Thursday, May 18th, 1905,

### THE "LANCET" AND VACCINATION.

Sir John Rolleston asked the President of the Local Government Board whether he was aware that the recently published opinions of Dr. S. Monckton Copeman and of the Commissioners appointed by the "Lancet" in 1900 and 1902 to examine the various lymphs on sale in this country, supported the view that large marks were not an evidence of efficient vaccination, and that small marks were not an evidence of inefficient vaccination; and that the same authorities had shown that in consequence of the modern methods of vaccination it was possible to produce the Board's stipulated area of vesiculation, viz, not less than half a square inch without leaving anything like a corresponding area of marks; and whether he proposed to take any steps to amend the Board's Vaccination Order of 1898, so as to make it more consistent with the latest medical evidence on these points.—Mr. Gerald Balfour answered: Dr. Copeman informs me that in his opinion large scars are not necessarily evidence of efficient vaccination, and small scars are not in themselves evidence of inefficient vaccination, but that usually the area of the scar corresponds fairly closely with that of the vesicle which preceded it. These opinions do not, as I am advised, render it necessary or desirable to amend the Vaccination Order, 1898, which does not make the area of the scar a criterion of successful vaccination.

### OLDHAM MEDICAL SOCIETY.

Dr. J. B. Wilkinson, Medical Officer of Health to Oldham, stated as to Vaccination that (1) out of 1,200 cases he had seen, only one occurred in a person within ten years of vaccination; (2) out of 730 in the last few years in Oldham, not one occurred in a vaccinated child under ten years of age; (3) and only two in similar persons under 15 years; (4) not a single death had occurred within twenty-five years of vaccination.—(*Extract from B.M.J., May 13th, 1905.*  
p. 1046.



## List of Cities and Towns in which Small-Pox occurred during 1905.

<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>
7/1/05.	Nottingham ..	1	14/1/05.	Kingston-		28/1/05.	Gorton .....	1
„	Swinton and		„	upon-Hull ..	6	„	Ashton-u-Lyne	2
„	Pendlebury ..	1	„	Sunderland ..	1	„	Chadderton ..	5
„	Manchester ..	1	„	Hebburn ....	1	„	Oldham .....	8
„	Salford .....	1	„	Jarrow .....	1	„	Burnley .....	3
„	Ashton-u-Lyne	2	„	South Shields.	6	„	Preston .....	1
„	Chadderton ..	4	„	Felling .....	6	„	Lancaster ....	1
„	Oldham .....	9	„	Gateshead ....	2	„	Keighley ....	2
„	Accrington ...	1	„	Newcastle-		„	Halifax .....	4
„	Burnley .....	11	„	upon-Tyne ..	8	„	Bradford ....	6
„	Preston .....	2	„	Tynemouth ..	1	„	Leeds .....	7
„	Halifax .....	1	21/1/05.	Nuneaton and		„	Wakefield ...	2
„	Bradford ....	9	„	Chilvers ....	3	„	Barnsley ....	6
„	Shipley .....	1	„	Leicester ....	1	„	Kingston-	
„	Leeds .....	4	„	Mansfield ....	1	„	on-Hull ...	7
„	Dewsbury ...	2	„	Macclesfield ..	2	„	W. Hartlepool	1
„	Barnsley ....	5	„	Liverpool ....	1	„	Hebburn ....	6
„	Kingston-		„	Wigan .....	1	„	Jarrow .....	1
„	upon-Hull ..	4	„	Manchester ..	1	„	South Shields.	2
„	W. Hartlepool	1	„	Salford .....	1	„	Felling .....	4
„	Hebburn ....	1	„	Ashton-u-Lyne	4	„	Gateshead ....	10
„	South Shields.	17	„	Stalybridge ...	1	„	Newcastle-	
„	Felling .....	2	„	Chadderton ..	5	„	upon-Tyne ..	7
„	Gateshead ....	5	„	Middleton ...	1	„	Wallsend .....	2
„	Newcastle-		„	Oldham .....	9	4/2/05.	Nuneaton	
„	upon-Tyne ..	4	„	Burnley ....	2	„	and Chilvers	2
„	Wallsend .....	2	„	Preston .....	1	„	Grimsby .....	1
14/1/05.	Nottingham ..	1	„	Blackpool ...	1	„	Mansfield ....	1
„	Macclesfield ..	3	„	Harrogate ...	1	„	Wigan .....	1
„	Manchester ..	1	„	Halifax .....	21	„	Bury .....	1
„	Salford .....	1	„	Bradford ....	6	„	Stretford ....	1
„	Ashton-u-Lyne	1	„	Dewsbury ...	3	„	Gorton .....	1
„	Stalybridge ...	1	„	Barnsley ....	7	„	Manchester ..	2
„	Chadderton ..	7	„	Kingston-		„	Stalybridge ...	2
„	Oldham .....	15	„	on-Hull ...	4	„	Chadderton ..	1
„	Rochdale ....	1	„	Hebburn ....	3	„	Middleton ...	2
„	Accrington ...	2	„	Jarrow .....	1	„	Oldham .....	5
„	Burnley .....	18	„	South Shields.	10	„	Blackpool ...	1
„	Lancaster ....	1	„	Felling .....	7	„	Keighley ....	4
„	Keighley ....	1	„	Gateshead ....	4	„	Huddersfield .	1
„	Halifax .....	8	„	Newcastle-		„	Bradford ....	6
„	Bradford ....	8	„	on-Tyne ...	10	„	Leeds .....	20
„	Leeds .....	21	„	Tynemouth ..	1	„	Dewsbury ...	2
„	Batley .....	2	„	Workington ..	1	„	Barnsley ....	8
„	Dewsbury ...	3	28/1/05.	Nuneaton		„	Kingston-	
„	Wakefield ...	1	„	and Chilvers	6	„	upon-Hull ..	7
„	Barnsley ....	12	„	Leicester ....	1	„	South Shields.	2

## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>
4/2/05.	Felling.....	14	18/2/05.	Tynemouth ..	1	4/3/05.	Felling.....	
„	Gateshead....	3	„	Wallsend.....	4	„	Gateshead....	
„	Newcastle-		25/2/05.	Erith .....	1	„	Newcastle-	
„	upon-Tyne .	5	„	West Ham ...	1	„	upon-Tyne .	
„	Blyth.....	1	„	Birmingham..	3	„	Tynemouth ..	
„	Wallsend.....	1	„	Nuneaton		11/3/05.	Birmingham .	1
„	Newport (Mon)	1	„	and Chilvers	3	„	Nuneaton	
11/2/05.	Hornsey .....	1	„	Nottingham ..	1	„	and Chilvers	2
„	Walsall .....	1	„	Ashton-u-Lyne	1	„	Nottingham ..	1
„	Nuneaton		„	Chadderton ..	2	„	Bury .....	8
„	and Chilvers	4	„	Middleton ...	2	„	Ashton-u-Lyne	1
„	Bury .....	1	„	Oldham .....	2	„	Chadderton ..	1
„	Oldham .....	6	„	Accrington ...	4	„	Middleton ...	1
„	Burnley.....	2	„	Burnley.....	3	„	Oldham .....	1
„	Preston .....	6	„	Preston .....	4	„	Burnley.....	2
„	Keighley ....	1	„	Keighley ....	1	„	Blackburn ...	1
„	Bradford ....	5	„	Bradford ....	2	„	Preston .....	2
„	Shipley .....	1	„	Shipley .....	2	„	Keighley ....	1
„	Leeds.....	12	„	Leeds.....	4	„	Leeds.....	11
„	Wakefield ...	1	„	Dewsbury ...	1	„	Wakefield ...	2
„	Barnsley ....	2	„	Wakefield ...	7	„	Doncaster ...	2
„	Kingston-		„	Barnsley ....	1	„	South Shields.	6
„	on-Hull ...	2	„	Rotherham ..	1	„	Gateshead....	6
„	Darlington ...	1	„	Kingston-		„	Newcastle-	
„	W. Hartlepool	3	„	upon-Hull .	2	„	upon-Tyne .	3
„	Hebburn ....	2	„	South Shields.	5	„	Tynemouth ..	4
„	South Shields.	2	„	Felling.....	3	„	Newport (Mon)	1
„	Felling.....	10	„	Gateshead....	2	„	Cardiff .....	1
„	Gateshead....	6	„	Newcastle-		18/3/05.	Enfield .....	1
„	Newcastle-		„	upon-Tyne .	11	„	Birmingham .	2
„	on-Tyne ...	6	„	Tynemouth ..	5	„	Farnworth ...	1
„	Tynemouth ..	3	4/3/05.	Nuneaton		„	Bury .....	6
18/2/05.	Nuneaton		„	and Chilvers	6	„	Ashton-u-Lyne	1
„	and Chilvers	20	„	Leicester ....	1	„	Oldham .....	7
„	Nottingham ..	1	„	Chadderton ..	1	„	Burnley.....	6
„	Oldham .....	4	„	Middleton ...	2	„	Preston .....	3
„	Burnley.....	8	„	Oldham .....	1	„	Huddersfield..	1
„	Preston .....	6	„	Accrington ...	1	„	Bradford ....	2
„	Lancaster ....	1	„	Burnley.....	5	„	Leeds.....	6
„	Keighley ....	9	„	Preston .....	2	„	Wakefield ...	2
„	Bradford ....	3	„	Keighley ....	5	„	Barnsley ....	1
„	Leeds.....	9	„	Halifax .....	2	„	Sheffield .....	2
„	Wakefield ...	1	„	Bradford ....	4	„	Doncaster ...	3
„	Barnsley ....	1	„	Leeds.....	1	„	Kingston-	
„	South Shields.	2	„	Dewsbury ...	1	„	upon-Hull ..	3
„	Felling.....	4	„	Doncaster ...	1	„	W. Hartlepool	4
„	Newcastle-		„	W. Hartlepool	1	„	South Shields.	3
„	upon-Tyne .	5	„	Jarrow .....	1	„	Felling.....	3



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week</i> <i>ending.</i>	<i>TOWN.</i>	<i>No. of</i> <i>cases.</i>	<i>Week</i> <i>ending.</i>	<i>TOWN.</i>	<i>No. of</i> <i>cases.</i>	<i>Week</i> <i>ending.</i>	<i>TOWN.</i>	<i>No. of</i> <i>cases.</i>
18/3/05.	Gateshead.....	2	8/4/05.	Lincoln .....	1	22/4/05.	Barnsley .....	3
„	Newcastle-		„	Chesterfield ..	2	„	Doncaster ...	3
„	upon-Tyne ..	2	„	Bury .....	2	„	Hebburn .....	1
„	Tynemouth ..	3	„	Ashton-u-Lyne	1	„	South Shields.	2
25/3/05.	Barking Town	1	„	Oldham .....	2	„	Felling.....	1
„	Birmingham..	1	„	Accrington ...	6	„	Newcastle-	
„	Nottingham ..	1	„	Preston .....	2	„	upon-Tyne ..	1
„	Bury .....	3	„	Halifax .....	4	„	Tynemouth ..	1
„	Oldham .....	8	„	Bradford ....	19	„	Cardiff .....	1
„	Accrington ...	1	„	Leeds.....	2	29/4/05.	Southampton.	1
„	Blackburn ...	1	„	Barnsley ....	4	„	Nuneaton and	
„	Keighley ....	2	„	Doncaster ...	2	„	Chilvers C. .	1
„	Bradford ....	1	„	Kingston-		„	Nottingham ..	4
„	Leeds.....	13	„	upon-Hull..	3	„	Chesterfield ..	3
„	Doncaster ...	3	„	South Shields.	5	„	Bury .....	1
„	Kingston-		„	Felling.....	1	„	Ashton-u-Lyne.	2
„	upon-Hull ..	2	„	Tynemouth ..	5	„	Oldham .....	3
„	South Shields.	7	„	Cardiff .....	1	„	Accrington ...	5
„	Felling.....	1	15/4/05.	Southampton.	4	„	Burnley.....	8
„	Gateshead....	2	„	Acton .....	1	„	Colne .....	1
„	Tynemouth ..	2	„	Leicester ....	1	„	Nelson .....	10
„	Cardiff .....	2	„	Chesterfield ..	4	„	Preston .....	2
1/4/05.	Ventnor.....	1	„	Bury .....	1	„	Bradford ....	6
„	Southampton.	9	„	Heywood ....	4	„	Barnsley ....	2
„	Cheltenham ..	1	„	Oldham .....	1	„	Doncaster ...	2
„	Chesterfield ..	7	„	Accrington ...	4	„	Darlington ...	1
„	Glossop .....	1	„	Preston .....	1	„	South Shields.	4
„	Bury .....	3	„	Bradford ....	1	„	Gateshead....	1
„	Heywood ....	4	„	Leeds.....	1	„	Tynemouth ..	1
„	Chadderton ..	1	„	Doncaster ...	2	6/5/05.	Southampton.	1
„	Oldham .....	1	„	York .....	1	„	Taunton .....	1
„	Accrington ...	6	„	Jarrow .....	5	„	Derby .....	2
„	Halifax .....	2	„	South Shields.	6	„	Chesterfield ..	2
„	Leeds.....	12	„	Felling.....	4	„	St. Helens....	1
„	Barnsley ....	4	„	Gateshead....	1	„	Wigan .....	1
„	Doncaster ...	6	„	Tynemouth ..	2	„	Bury .....	5
„	Kingston-		„	Merthyr Tyd'l.	1	„	Heywood ....	1
„	upon-Hull..	1	22/4/05.	Nottingham ..	4	„	Ashton-u-Lyne	1
„	W. Hartlepool	1	„	Derby .....	1	„	Oldham .....	1
„	South Shields.	10	„	Stockport ....	1	„	Accrington ...	3
„	Gateshead....	4	„	Birkenhead...	1	„	Burnley.....	5
„	Tynemouth ..	5	„	Heywood ....	2	„	Nelson .....	2
„	Cardiff .....	1	„	Chadderton ..	2	„	Halifax .....	1
8/4/05.	Erith .....	1	„	Oldham .....	2	„	Bradford ....	6
„	Southampton.	2	„	Accrington ...	1	„	Leeds.....	2
„	Birmingham..	1	„	Preston .....	1	„	Barnsley ....	1
„	Nuneaton		„	Halifax .....	3	„	South Shields.	2
„	and Chilvers	1	„	Bradford ....	9	„	Felling.....	2

## LIST OF TOWNS, &amp;C.—CONTINUED.

<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>
13/5/05.	Bristol . . . . .	1	10/6/05.	Bedford . . . . .	1	1/7/05.	Peterborough . . . . .	2
„	Worcester . . . . .	1	„	Salisbury . . . . .	2	„	Salisbury . . . . .	1
„	Chadderton . . . . .	1	„	Poole . . . . .	1	„	Bristol . . . . .	2
„	Oldham . . . . .	2	„	Bristol . . . . .	1	„	Wolverh'pton . . . . .	1
„	Rochdale . . . . .	1	„	Birmingham . . . . .	1	„	Birmingham . . . . .	8
„	Burnley . . . . .	1	„	Nuneaton and Chilvers C. . . . .	1	„	Aston Manor . . . . .	1
„	Nelson . . . . .	1	„	Derby . . . . .	15	„	Mansfield . . . . .	1
„	Preston . . . . .	1	„	Oldham . . . . .	1	„	Derby . . . . .	6
„	Halifax . . . . .	1	„	Burnley . . . . .	2	„	Chesterfield . . . . .	13
„	Bradford . . . . .	3	„	Blackburn . . . . .	1	„	Oldham . . . . .	8
„	Leeds . . . . .	1	„	Preston . . . . .	12	„	Burnley . . . . .	1
„	Hebburn . . . . .	1	„	Bradford . . . . .	1	„	Preston . . . . .	6
„	South Shields . . . . .	4	„	Sunderland . . . . .	1	„	Todmorden . . . . .	3
„	Gateshead . . . . .	2	„	Jarrow . . . . .	1	„	Felling . . . . .	2
„	Newcastle-upon-Tyne . . . . .	7	„	South Shields . . . . .	1	„	Gateshead . . . . .	1
20/5/05.	Portsmouth . . . . .	1	„	Felling . . . . .	2	„	Cardiff . . . . .	4
„	Poole . . . . .	1	„	Newcastle-upon-Tyne . . . . .	1	„	Swansea . . . . .	1
„	Taunton . . . . .	1	„	Cardiff . . . . .	1	8/7/05.	Chatham . . . . .	1
„	Bristol . . . . .	1	17/6/05.	Salisbury . . . . .	1	„	Plymouth . . . . .	1
„	Nuneaton and Chilvers C. . . . .	3	„	Cheltenham . . . . .	1	„	Cheltenham . . . . .	1
„	Derby . . . . .	1	„	Birmingham . . . . .	9	„	Birmingham . . . . .	1
„	Chesterfield . . . . .	2	„	Derby . . . . .	2	„	Coventry . . . . .	1
„	Macclesfield . . . . .	1	„	Chesterfield . . . . .	3	„	Derby . . . . .	5
„	Bury . . . . .	2	„	Ashton-u-Lyne . . . . .	1	„	Chesterfield . . . . .	4
„	Ashton-u-Lyne . . . . .	1	„	Preston . . . . .	4	„	Oldham . . . . .	1
„	Preston . . . . .	1	„	Newcastle-upon-Tyne . . . . .	1	„	Accrington . . . . .	1
„	Halifax . . . . .	2	„	Cardiff . . . . .	1	„	Doncaster . . . . .	1
„	Bradford . . . . .	3	24/6/05.	Chatham . . . . .	1	„	Goole . . . . .	1
„	Barnsley . . . . .	1	„	Portsmouth . . . . .	1	„	Felling . . . . .	1
„	Doncaster . . . . .	1	„	Kettering . . . . .	1	„	Newcastle-upon-Tyne . . . . .	5
„	South Shields . . . . .	1	„	Peterborough . . . . .	4	15/7/05.	Chatham . . . . .	1
„	Felling . . . . .	4	„	Bedford . . . . .	2	„	Bristol . . . . .	1
„	Gateshead . . . . .	1	„	Poole . . . . .	2	„	Worcester . . . . .	1
3/6/05.	Bristol . . . . .	1	„	Bristol . . . . .	3	„	Derby . . . . .	12
„	Mansfield . . . . .	6	„	Birmingham . . . . .	1	„	Chesterfield . . . . .	3
„	Nottingham . . . . .	1	„	Mansfield . . . . .	2	„	Middleton . . . . .	1
„	Derby . . . . .	11	„	Derby . . . . .	19	„	Burnley . . . . .	1
„	Chadderton . . . . .	5	„	Chesterfield . . . . .	5	„	Preston . . . . .	1
„	Oldham . . . . .	3	„	Chadderton . . . . .	1	„	Newcastle-upon-Tyne . . . . .	4
„	Preston . . . . .	3	„	Oldham . . . . .	3	„	Cardiff . . . . .	3
„	Bradford . . . . .	1	„	Blackburn . . . . .	1	22/7/05.	Bristol . . . . .	1
„	Jarrow . . . . .	1	„	Preston . . . . .	12	„	Birmingham . . . . .	3
„	South Shields . . . . .	2	„	Todmorden . . . . .	1	„	Derby . . . . .	16
„	Newcastle-upon-Tyne . . . . .	2	„	Sheffield . . . . .	1	„	Manchester . . . . .	1
10/6/05.	Northampton . . . . .	1	„	Felling . . . . .	4	„	Middleton . . . . .	1
						„	Oldham . . . . .	1



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>	<i>Week ending.</i>	<i>TOWN.</i>	<i>No. of cases.</i>
22/7/05.	Preston . . . . .	1	26/8/05.	Newcastle-		21/10/05.	Plymouth . . . .	7
„	Felling . . . . .	2	„	upon-Tyne . .	1	„	Nottingham . .	1
„	Newcastle-		„	Pontypridd . .	2	„	Liverpool . . . .	7
„	upon-Tyne . .	1	„	Rhondda . . . .	2	„	Oldham . . . . .	1
„	Barry . . . . .	1	2/9/05.	Exeter . . . . .	2	„	Batley . . . . .	6
„	Cardiff . . . . .	1	„	Plymouth . . .	5	28/10/05.	Plymouth . . . .	1
„	Pontypridd . .	2	„	Nuneaton and		„	Devonport . . .	1
29/7/05.	Plymouth . . .	1	„	Chilvers C. .	13	„	Nuneaton and	
„	Worcester . . .	1	„	Derby . . . . .	1	„	Chilvers C. . .	1
„	Mansfield . . .	4	„	Oldham . . . . .	5	„	Oldham . . . . .	5
„	Nottingham . .	1	„	Cardiff . . . . .	1	„	Batley . . . . .	1
„	Derby . . . . .	6	„	Pontypridd . .	1	4/11/05.	Plymouth . . .	6
„	Chesterfield . .	2	9/9/05.	Exeter . . . . .	1	„	Oldham . . . . .	10
„	Birkenhead . .	1	„	Plymouth . . .	5	„	Leeds . . . . .	1
„	Oldham . . . . .	4	„	Nuneaton and		11/11/05.	Wimbledon . .	1
„	Newcastle-		„	Chilvers C. .	16	„	Plymouth . . .	1
„	upon-Tyne . .	4	„	Chadderton . .	1	„	Bolton . . . . .	2
„	Barry . . . . .	1	„	Blackpool . . .	1	„	Oldham . . . . .	4
„	Cardiff . . . . .	2	„	Wallsend . . . .	1	„	Batley . . . . .	2
5/8/05.	Portsmouth . .	4	16/9/05.	Portsmouth . .	2	18/11/05.	Plymouth . . . .	1
„	Plymouth . . .	1	„	Plymouth . . .	2	„	Oldham . . . . .	10
„	Kings Norton		„	Nuneaton and		„	Leeds . . . . .	2
„	& Northfield .	1	„	Chilvers C. .	3	„	Swansea . . . .	1
„	Derby . . . . .	4	„	Chadderton . .	1	25/11/05.	Plymouth . . . .	9
„	Chesterfield . .	1	„	Oldham . . . . .	13	„	Oldham . . . . .	20
„	Middleton . . .	1	„	Pontypridd . .	1	2/12/05.	Plymouth . . . .	8
„	Oldham . . . . .	1	23/9/05.	Plymouth . . .	4	„	Middleton . . .	1
„	Newcastle-		„	Nuneaton and		„	Oldham . . . . .	8
„	upon-Tyne . .	1	„	C. Coton . . .	2	7/12/05.	Plymouth . . .	12
12/8/05.	Portsmouth . .	1	„	Leicester . . . .	1	„	Ashton-u-Lyne .	1
„	Torquay . . . .	1	„	Oldham . . . . .	1	„	Oldham . . . . .	15
„	Derby . . . . .	2	„	Felling . . . . .	1	„	Preston . . . . .	1
„	Chesterfield . .	1	„	Wallsend . . . .	1	„	Kingston-	
„	Middleton . . .	1	„	Pontypridd . .	3	„	upon-Hull . .	3
„	Oldham . . . . .	1	30/9/05.	Plymouth . . .	7	16/12/05.	Plymouth . . . .	7
„	Batley . . . . .	1	„	Nuneaton and		„	Devonport . . .	1
„	Cardiff . . . . .	2	„	C. Coton . . .	4	„	Oldham . . . . .	17
„	Pontypridd . .	1	„	Oldham . . . . .	5	23/12/05.	Plymouth . . . .	2
19/8/05.	Portsmouth . .	1	„	Batley . . . . .	4	„	Devonport . . .	1
„	Nuneaton and		7/10/05.	Plymouth . . .	6	„	Ashton-u-Lyne .	13
„	Chilvers C. .	13	„	Devonport . . .	1	„	Stalybridge . .	3
„	Derby . . . . .	3	„	Nuneaton and		„	Oldham . . . . .	20
„	Oldham . . . . .	10	„	Chilvers C. .	1	30/12/05.	Plymouth . . . .	5
„	Wallsend . . . .	1	14/12/05.	Plymouth . . . .	5	„	Devonport . . .	1
„	Cardiff . . . . .	1	„	Nuneaton and		„	Stalybridge . .	4
26/8/05.	Nuneaton and		„	C. Coton . . .	1	„	Oldham . . . . .	12
„	Chilvers C. .	16	„	Liverpool . . . .	2	„	Cardiff . . . . .	1
„	Derby . . . . .	3	„	Oldham . . . . .	6			
„	Batley . . . . .	1	„	Batley . . . . .	2			

## SCARLET FEVER.

Number of Notifications .....	325
Number of Deaths .....	11
Death-rate per 1,000 of population....	·12

The number of notifications of this disease is for 1905, 325, against 191 in 1904 ; and 11 deaths, against 11 in 1904.

	<i>Notifications</i>	<i>Removed to Sanatorium</i>	<i>Deaths</i>
January .....	22	11	—
February .....	18	10	—
March .....	31	17	2
April .....	29	14	2
May .....	49	39	2
June .....	33	22	—
July .....	25	16	1
August .....	18	13	1
September .....	16	9	—
October .....	34	19	2
November .....	23	17	1
December .....	27	20	—
Total .....	325	207	11

The percentage of Removals to Sanatorium has been 63·69, against 68·06 in 1904, and 56·63 in 1903.

The number of return cases during the year were 7, and it is difficult to account for these cases, apparently we are bound to get a certain percentage. It may be a coincidence, but during 1905 we have had eleven deaths amongst those notified, 5 occurred in hospital, and these were severe cases when sent in ; this equals 5 in 63·69 % of cases removed, and the remaining 6 cases were in the remaining 36·31 left at home, so we may take it that the fatality amongst those cases left to be nursed in better houses, with parental care and nursing, gives us a death rate of 5·08 against 2·41 in hospital,

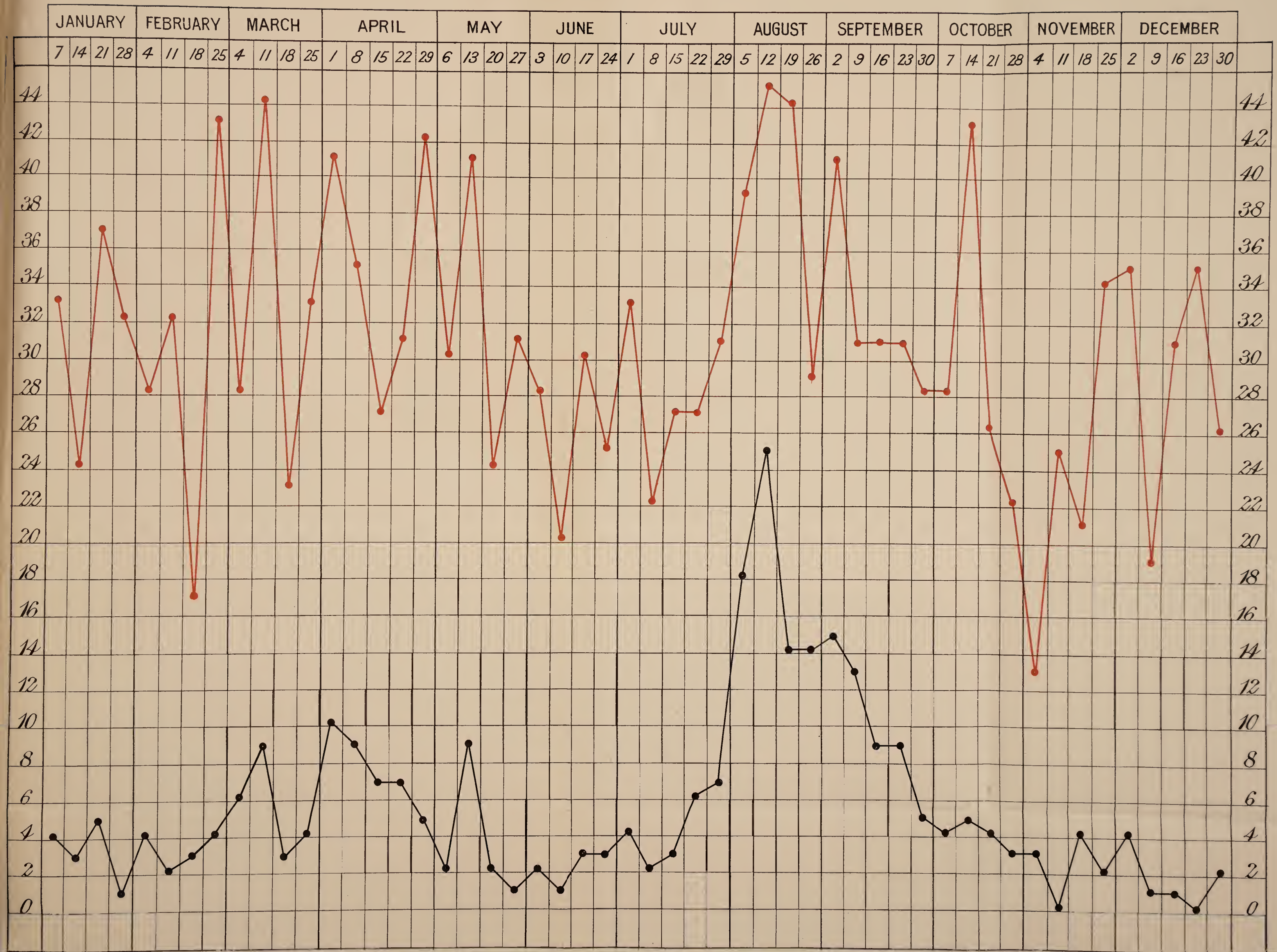


# DEATH RETURNS CHART I.

—: 1905. :—

All Causes (Red).

Zymotics. (Black).





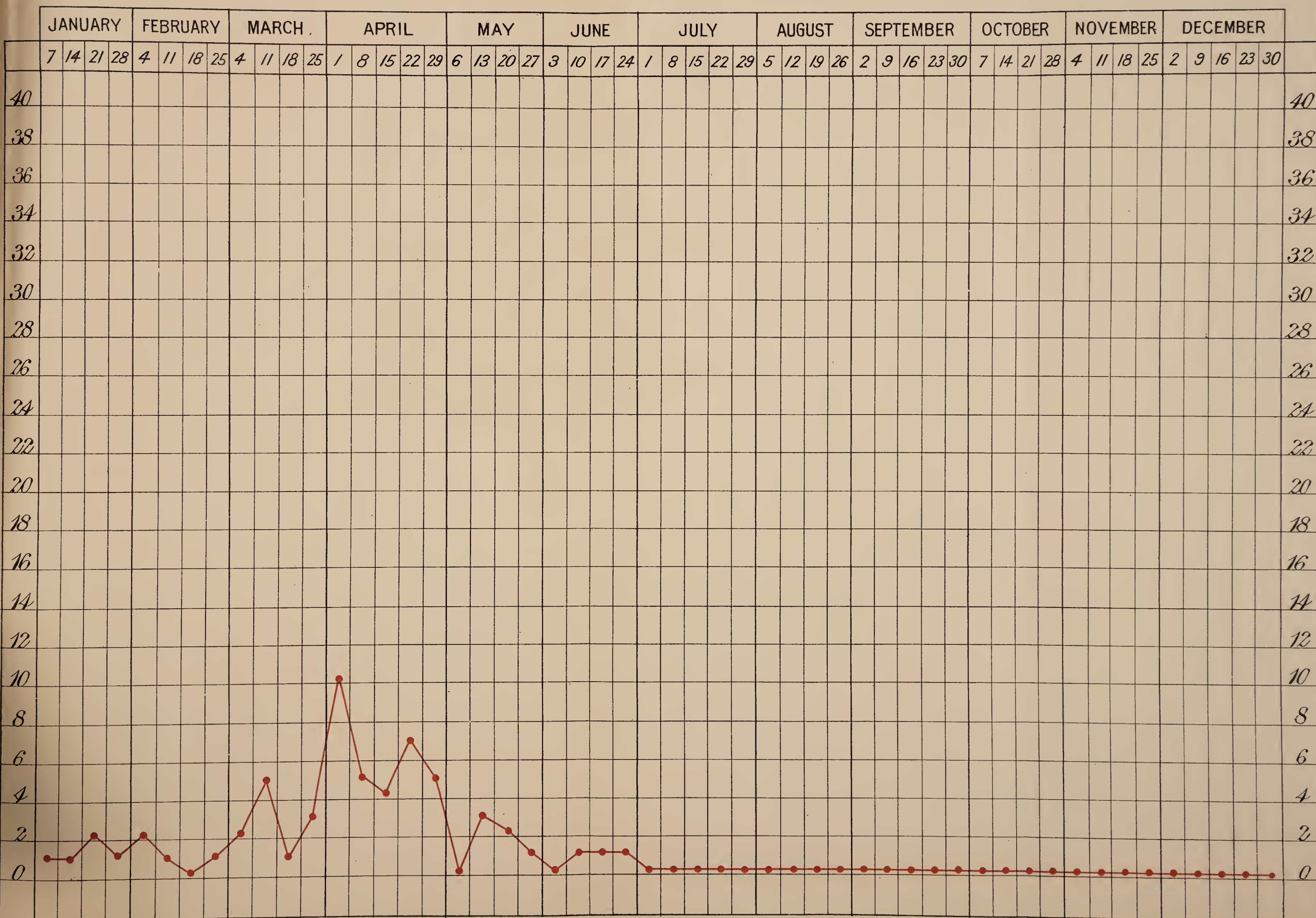


## DEATH RETURNS CHART II.

\_\_\_\_\_; 1905. \_\_\_\_\_

## Measles.

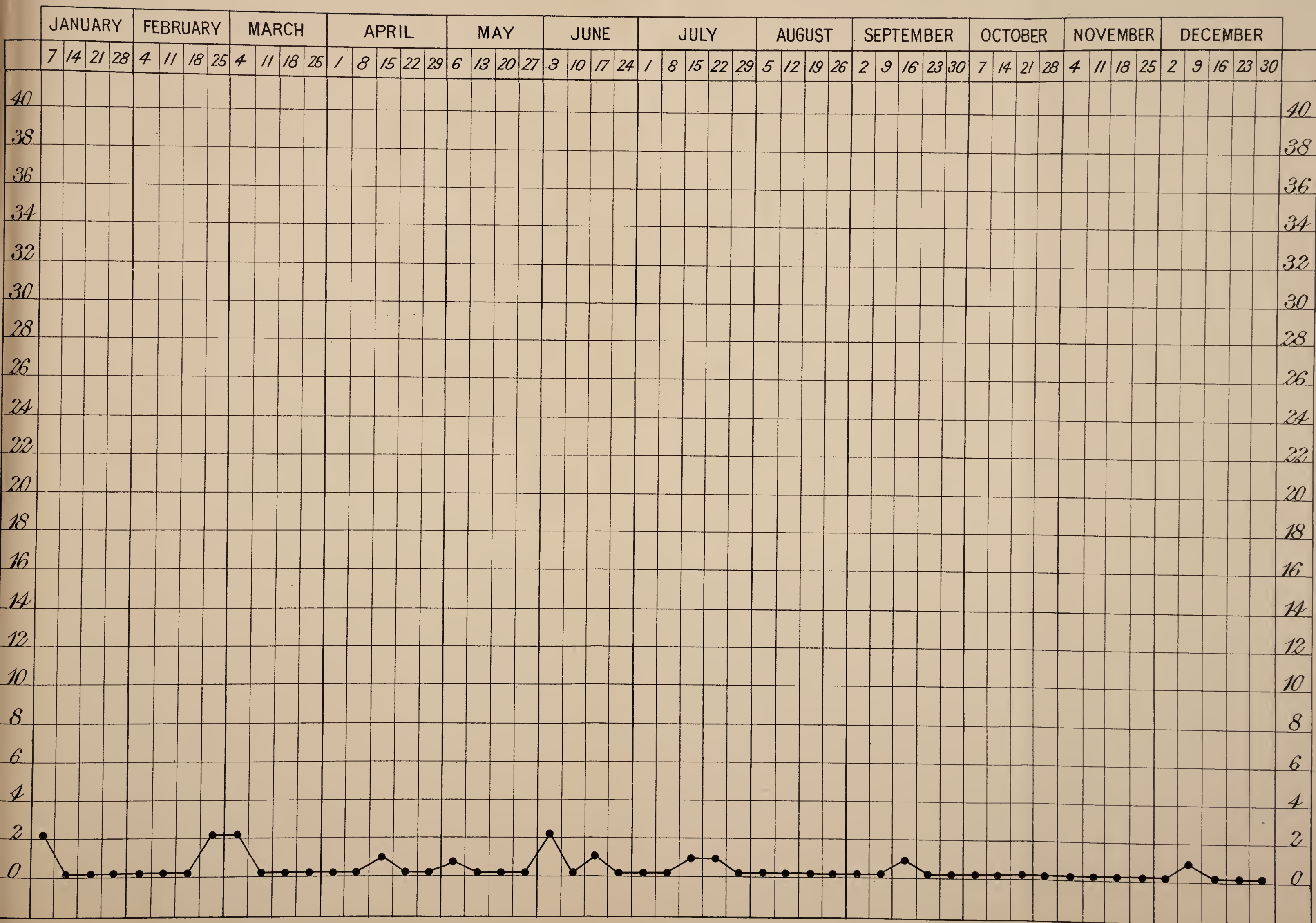
(Red)





\_\_\_\_\_ : 1905. : \_\_\_\_\_

## Whooping Cough. (Black)

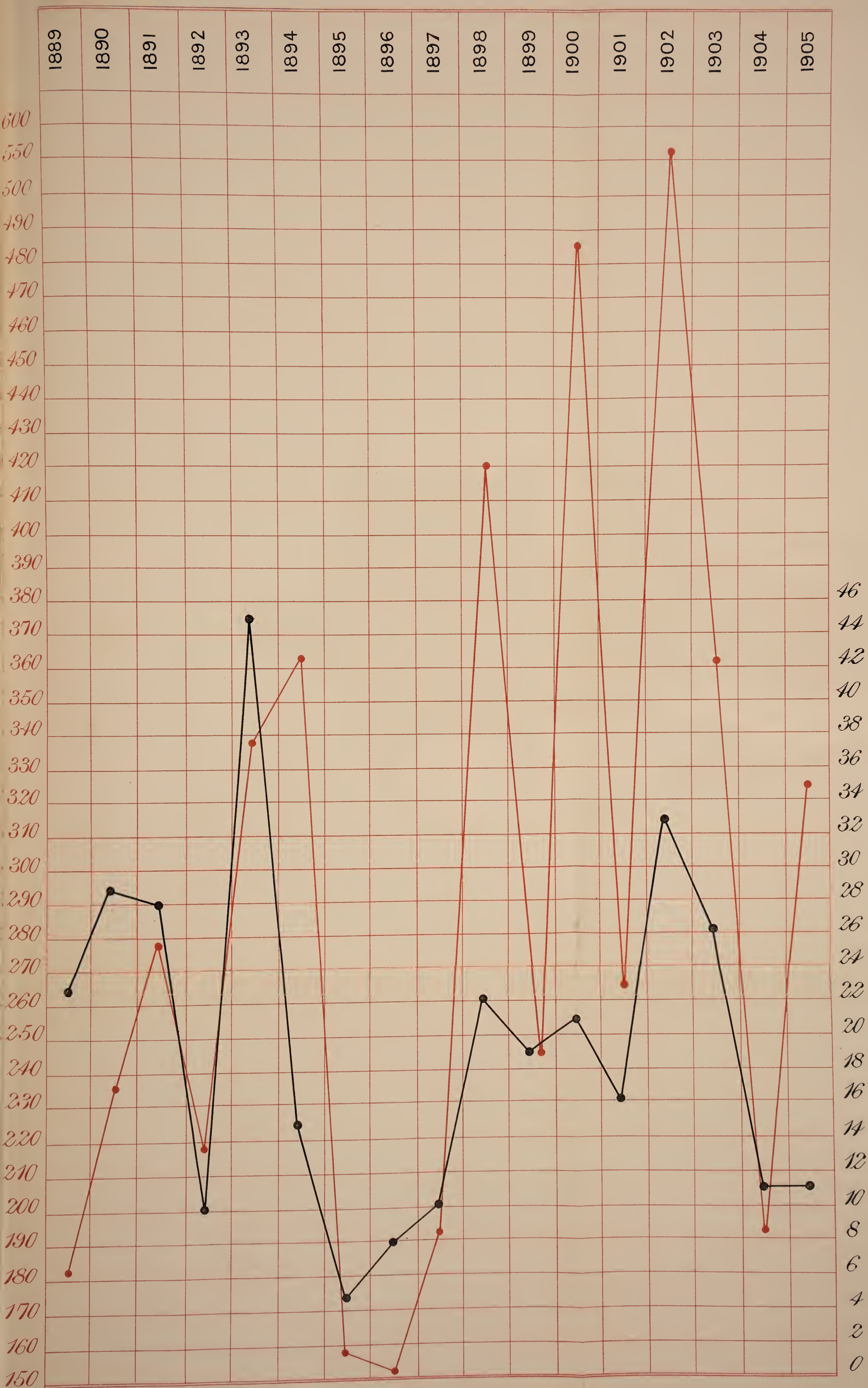






# SCARLET FEVER.

CHART:— Cases notified in red. ● Deaths in black. ●







## BOROUGH OF WIGAN.

Notification of Disease adopted March, 1889.

Hospital opened 1891.

**SCARLET FEVER.**

Year.	Estimated Popu- lation.	Cases Notified	Under Five Years.	Deaths	Cases in Hospitl.	Attacks per 1 000.	Deaths per 1,000	Removals per cent per Annum.
1889	53916	182	76	23	15	3.37	.42	8.24
1890	54440	235	163	29	83	4.31	.42	35.31
1891	55084	278	198	28	150	6.86	.50	39.68
1892	56040	218	117	10	79	3.89	.17	36.69
1893	57483	336	211	45	183	5.84	.78	54.49
1894	58529	361	215	15	200	6.16	.25	55.40
1895	59469	157	84	5	92	2.64	.08	58.59
1896	60235	151	83	8	43	2.50	.13	28.47
1897	61202	191	84	10	95	3.12	.16	49.74
1898	61697	420	220	22	189	6.80	.35	45.00
1899	62630	245	129	19	142	3.91	.30	57.95
1900	63440	485	159	21	211	7.63	.33	42.59
1901	60923	264	92	16	155	4.00	.26	58.70
1902	61827	557	190	33	246	9.00	.53	44.16
1903	62689	362	119	26	205	5.77	.41	56.63
1904	64249	191	88	11	130	2.97	.17	68.06
1905	88306	325	131	11	207	3.68	.12	63.69

# AGE INCIDENCES OF SCARLET FEVER.

	MONTHS.				YEARS.												Total.
	1-3	3-6	6-9	9-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	20 & o'vr	
Ages .....	0	1	1	0	12	30	37	50	36	33	29	24	23	37	9	3	325
Total No. of Notifications	2				129				145				49				
Under 1 year .....																	
From 1 to 5 years...																	
"    5 to 10 years..																	
Over 10 years .....																	
Sickness Rate per 1,000 of the P'p'lacion at each age	-	.011	.011	-	.13	.33	.41	.56	.40	.37	.32	.27	.26	.41	.10	.033	3.68
Deaths at different ages .	-	-	-	-	3	3	2	2	-	1	-	-	-	-	-	-	11
Percentage Mortality ...	-	-	-	-	25.0	10.0	5.40	4.0	-	3.03	-	-	-	-	-	-	3.38
All under 1 year .....	0																

## MEASLES.

The total number of cases notified for 1905 was 1,108 against 831 cases in 1904. Of these 739 were notified by medical men, and 369, the remainder, discovered by the inspectors when inquiring into the notified cases.

The deaths numbered 60, or a rate of  $\cdot 67$  per 1,000 of the population, or a percentage mortality of 5.41 against 2.76 in my last report, and 7.14 per cent. in 1903. This shows that in epidemic cycles the percentage of deaths varies according to the period of the year.

The following is a list of voluntary notifications and other cases discovered in consequence :—

### VOLUNTARY NOTIFICATIONS OF MEASLES IN 1905.

	<i>Notifications</i>	<i>Deaths</i>
January .....	132	6
February .....	172	5
March .....	330	19
April .....	217	21
May .....	102	6
June .....	42	3
July .....	15	—
August .....	8	—
September .....	4	—
October .....	35	—
November.....	47	—
December .....	4	—
Total .....	1108	60



## AGE INCIDENCE.

1905.	<i>Und.1 yr.</i>	<i>1-5 yrs.</i>	<i>5-15 yrs.</i>	<i>15-25 yrs.</i>	<i>25-65yrs.</i>	<i>Total.</i>
Jan. . . .	6	97	28	1	—	132
Feb. . . .	3	94	74	1	—	172
Mar. . . .	20	230	79	1	—	330
April . .	20	163	33	—	1	217
May . . .	14	76	12	—	—	102
June . .	6	29	7	—	—	42
July . . .	—	14	1	—	—	15
Aug. . . .	2	6	—	—	—	8
Sept. . .	—	3	1	—	—	4
Oct. . . .	1	13	21	—	—	35
Nov. . .	6	28	13	—	—	47
Dec. . . .	1	2	1	—	—	4
Total.	79	755	270	3	1	1108

We still have voluntary notification of Measles. On May 19th, 1904, the Sanitary Committee agreed to voluntary notification of the first case of Measles in a house for a further period of three years. This, I am persuaded, is beneficial, and enables us to know in what district fresh cases arise.

It was necessary to close the following schools or a department, to prevent further spread, and this was effectual.

St. Stephen's Schools, Whelley.  
 St. Patrick's           ,,       Wigan.  
 St. George's           ,,       ,,  
 St. Michael's         ,,       ,,  
 St. Catherine's       ,,       ,,  
 St. Paul's             ,,       Goose Green.  
 St. Cuthbert's       ,,       Pemberton.  
 Pemberton Colliery Schools.

## WHOOPIING COUGH.

The number of deaths from Whooping Cough is 15, against 34 in 1904, and 28 in 1903. The number is shown in the following table :—

	<i>Deaths in</i> 1905.	<i>Deaths in</i> 1904.
January .....	2	10
February .....	4	6
March .....	—	1
April .....	2	1
May .....	2	4
June .....	1	2
July .....	2	1
August .....	—	2
September .....	1	3
October .....	—	—
November .....	—	1
December .....	1	3
Total .....	15	34

The deaths were less in 1905 by 19, nevertheless it is a very dangerous disease owing to the lung affections which supervene.

## TYPHUS FEVER.

I am pleased to say we have had no notifications of this disease during the year.

## ENTERIC FEVER.

Number of Notifications	....	....	133
Number of Deaths	....	....	36
Mortality per 1,000 of population	....	....	40
Removed to Sanatorium	....	....	88

We have for 1905, 133 notifications, against 56 in 1904, and 51 in 1903. A few of the cases removed to the Sanatorium turned out to be cases of other febrile diseases.

The Number of deaths were 36, or 27·06 per cent. of the cases notified, against a rate of 28·57 per cent. in 1904, and 21·56 per cent. in 1903.

## Removed to Sanatorium.

January... . . . .	3
February . . . . .	9
March..... . . . .	4
April ... . . . .	0
May ... . . . .	7
June..... . . . .	0
July . . . . .	2
August . . . . .	11
September..... . . . .	22
October . . . . .	4
November . . . . .	16
December . . . . .	8

Total..... 88

In the Thompson Yates Laboratory, Liverpool, we have had 11 specimens of blood examined, with the following results:—

Positive reaction.....	7
Negative .....	4

### ENTERIC FEVER

We have had a large number of Enteric Fever cases, larger in proportion than in the previous year, yet we cannot say it has been epidemic, as it appeared in different parts of the town. The mortality rate is also great, and this has been due to the severity of the disease, and to some extent the want of early removal to Hospital. We have 36 deaths in 133 cases a rate of 27·51 nearly twice as great as it should be. Every month gave us notifications, and in August we had an accession to 16 against 5 in July, September 31, October 12, November 21, and December 11, we have now a decline in number of cases notified.

I here give the weekly number of notifications from January 7th to December 30th.



## WEEKLY NOTIFICATIONS FOR 1905.

Jan. 7th	..	..	..	1	July 29th	..	..	..	1
„ 21st	..	..	..	1	Aug. 5th	..	..	..	2
„ 28th	..	..	..	2	„ 12th	..	..	..	2
Feb. 4th	..	..	..	4	„ 19th	..	..	..	5
„ 11th	..	..	..	1	„ 26th	..	..	..	4
„ 18th	..	..	..	2	Sept. 2nd	..	..	..	8
„ 25th	..	..	..	3	„ 9th	..	..	..	4
Mar. 4th	..	..	..	4	„ 16th	..	..	..	9
„ 11th	..	..	..	2	„ 23rd	..	..	..	8
„ 25th	..	..	..	2	„ 30th	..	..	..	5
Apr. 15th	..	..	..	1	Oct. 7th	..	..	..	3
„ 22nd	..	..	..	2	„ 21st	..	..	..	5
May 6th	..	..	..	1	„ 28th	..	..	..	3
„ 13th	..	..	..	2	Nov. 4th	..	..	..	3
„ 20th	..	..	..	1	„ 11th	..	..	..	7
„ 27th	..	..	..	3	„ 18th	..	..	..	7
June 3rd	..	..	..	1	„ 25th	..	..	..	3
„ 10th	..	..	..	1	Dec. 2nd	..	..	..	2
„ 17th	..	..	..	1	„ 9th	..	..	..	3
„ 24th	..	..	..	1	„ 16th	..	..	..	4
July 1st	..	..	..	1	„ 23rd	..	..	..	1
„ 15th	..	..	..	3	„ 30th	..	..	..	3
„ 22nd	..	..	..	1					

## ENTERIC FEVER.

1905.	<i>Notification.</i> (1905.) (1904.)		<i>Deaths.</i> (1905.) (1904.)	
January .....	4	1	2	—
February .....	12	1	1	1
March .....	6	3	2	—
April .....	2	2	—	2
May .....	9	2	2	2
June .....	4	4	1	2
July .....	5	5	1	—
August .....	16	3	4	1
September .....	31	6	9	—
October .....	12	12	5	5
November .....	21	8	7	1
December .....	11	9	2	2
Total .....	133	56	36	16

## INCIDENCE OF ENTERIC FEVER FOR TEN YEARS.

<i>Year.</i>	<i>Notified Cases.</i>	<i>Deaths from Enteric</i>	<i>Enteric Fever rate per 1,000.</i>
1896	101	14	.23
1897	63	10	.16
1898	92	17	.27
1899	174	25	.40
1900	104	19	.29
1901	71	12	.19
1902	76	14	.22
1903	<del>515</del>	11	.17
1904	56	16	.24
1905	133	36	.40

The age incidence shows the greatest number of cases have occurred in persons over 30 years, and the next larger in cases from 5-10.

## AGE INCIDENCE.

## YEARS.

1-4	5-9	10-14	15-19	20-24	25-29	over 30
13	26	19	14	15	19	27

Total cases 133

Pemberton district in proportion to population has given us a greater number of cases, this, I think, is accounted for by the large number of privy middens, defective drainage, and unpaved or badly paved yards.

Houses in which cases have occurred with :—

<i>Privy Middens.</i>	<i>Pails.</i>	<i>Waste Water Closets.</i>	<i>Water Closets.</i>
31	61	4	11

Number of privy middens in Wigan	...	12
„ „ in Pemberton		1,754

## STREET LIST OF DEATHS FROM ENTERIC FEVER.

WIGAN.		PEMBERTON.	
Bankes Street .....	1	Bentinck Street .....	1
Byrom Street .....	1	Douglas Street.....	1
Darlington Street East....	1	Enfield Street .....	2
Dorset Street .....	3	Leopold Street.....	1
Driving Lane .....	1	Northumberland Street .	1
Frog Lane .....	2	Scot Lane .....	1
Harrison's Yard, Lime St. .	1	Smethurst Street .....	1
Lime Street .....	1	Turner's Yard, Smithy	
Lyon's Yard, Ironmonger		Brook .....	1
Lane .....	1	Warrington Road .....	1
New Square .....	1	Wright's Yard, Fleet St..	1
Poolstock .....	1	Workhouse .....	1
Seed Street .....	1		
Swift's Yard, Millgate ....	1		12
Upper Dicconson Street ..	1		
Victoria Street .....	1		
Vine Street .....	1	Estimated Population for	
Walmesley Avenue .....	1	year ending 1905, 23,151	
Whelley .....	1		
Windsor Street .....	1		
Woodhouse Lane.....	1		
Workhouse .....	1		
	24		
Estimated Population for year			
ending 1905, 65,455			

## ENTERIC FEVER.

Cases in houses with insanitary conditions and surroundings .. .. .	40
„ in houses with other defects .. .. .	35
„ „ where no defects found .. .. .	52
„ that occurred at the Infirmary & Workhouse	6
Total .. .. .	133



LIST OF STREETS IN WIGAN WHERE CASES OF  
ENTERIC FEVER HAVE OCCURRED.

	1905	1904		1905	1904
Adelaide Street . . . . .	1		Mason Street . . . . .	1	
Bradshaw Street . . . . .	1		Miry Lane . . . . .	2	
Brown Street . . . . .	1		Millgate . . . . .	2	
Bankes Street . . . . .	1		New Square . . . . .	4	
Byrom Street . . . . .	1		Newark Street . . . . .	1	
Birkett Bank Terrace	1		Pool Street . . . . .	1	1
Brookhouse Street . .	3	1	Powell Street . . . . .	2	
Crawford Terrace . . .	1		Poolstock . . . . .	2	2
Charles Street . . . . .	1		Prescott Street . . . . .	1	
Cecil Street . . . . .	1		Princess Street . . . . .	1	
Cooper's Row . . . . .	1		Stopforth Street . . . . .	1	
Cambridge Street . . .	1		Scholes . . . . .	1	2
Driving Lane . . . . .	1		School Street . . . . .	1	
Darlington St. East . .	1		Seven Stars Road . . . .	1	
Duke Street . . . . .	1		Somerville Road . . . . .	1	
Dorset Street . . . . .	4		Scholefield Lane . . . . .	1	1
First Avenue . . . . .	1		Queen Street . . . . .	1	
Frog Lane . . . . .	1		Upper Dicconson St . . .	1	
Gilroy Street . . . . .	2		Upper Morris Street . .	1	
Great George Street . .	1	1	Vine Street . . . . .	3	
Grayson's Yard . . . .	1		Woodhouse Lane . . . . .	2	1
Hallgate . . . . .	1	1	Wallace Lane . . . . .	1	
Hope Street . . . . .	1		Wallgate . . . . .	1	
Hardybutts . . . . .	1	1	Water Heyes . . . . .	1	
Kendal Street . . . . .	1		Weston Street . . . . .	2	
Infirmery . . . . .	4	3	Walmesley Avenue . .	1	
Ironmonger Lane . . .	1		Whelley . . . . .	3	
Jockey Terrace . . . . .	1		Windsor Street . . . . .	1	
Lamb Street . . . . .	1		Wilcock Street . . . . .	1	
Little London . . . . .	1		Workhouse . . . . .	1	
Lime Street . . . . .	5		York Street East . . . . .	1	
Moorfield Street . . . .	2		York Street . . . . .	1	

LIST OF STREETS IN PEMBERTON WHERE CASES  
OF ENTERIC FEVER HAVE OCCURRED.

Alfred Street .. .. .	2
Bentinck Street .. .. .	2
Billinge Road .. .. .	1
Barton Street .. .. .	1
Church Street .. .. .	1
Duke Street .. .. .	2
Douglas Street.. .. .	1
Enfield Street .. .. .	3
Ellesmere Road .. .. .	1
Factory Street .. .. .	2
Fleming's Yard, Ormskirk Road..	2
Leopold Street.. .. .	4
Little Lane .. .. .	1
Northumberland Street .. ..	1
New Street .. .. .	1
Ormskirk Road .. .. .	3
Smethurst Street .. .. .	1
Scot Lane .. .. .	2
Stanley Street .. .. .	3
Turner's Yard, Warrington Road..	2
Warrington Road .. .. .	3
Worsley Mesnes .. .. .	2
Wright's Yard, Fleet Street .. ..	1

# ENTERIC FEVER CASES DURING 1905.

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- W. P., 5 years, 12 Queen Street. Notified January 5th. Case commenced December 27th, 1894, removed to Sanatorium January 5th. 2 living and 2 sleeping rooms, occupied by 3 Adults and 7 children. Patient attends St. Thomas's Caroline Street School. Surroundings: Large open yard, part paved, drains choked, pail closet. Milk not used.
- W. H., aged 27 years, Union Workhouse. Notified January 19th, 1905. Case isolated at Workhouse
- L. M. S., 12 years, 16, Leopold Street, Pemberton. Notified January 27th, 1905. Case commenced January 20th. Removed to Sanatorium January 27th. 2 living and 2 sleeping rooms, occupied by 3 adults and 5 children. Patient attends Highfield School. Surroundings: Yard part flagged, drains recently choked, privy midden. Milk from Tan Pit Farm.
- E. A. P., 26 years, 6, Lamb Street. Notified January 27th. Case commenced January 21st. Removed to Sanatorium January 27th, 1905. 2 living and 3 sleeping rooms, occupied by 3 adults and 1 child. Patient when ill came to this house from Warrington Lane Terrace. Surroundings: Yard part flagged, pail closet, drains trapped. Street and back passage unpaved. Milk purchased from various persons.
- A. S., 4 years, 16, Leopold Street, Pemberton. Notified February 2nd.
- E. S., 7 years, 16, Leopold Street, Pemberton. Notified February 2nd.
- J. S., 8 years, 16, Leopold Street, Pemberton. Notified February 2nd. Cases all commenced on January 27th. Removed to Sanatorium on February 2nd, 1905, the 2nd, 3rd and 4th cases. 1st case notified on January 27th, 1905.



- M. D., 19 years, 8, Water Heyes Terrace. Notified February 4th, 1905. Case commenced on January 28th. Removed to Sanatorium on Feby. 4th, 1905. Patient worked at Coop and Co., Wholesale Clothiers. 2 living and 3 sleeping rooms occupied by 5 adults and 4 children. Surroundings: Yard flagged, pail closets, house lies very low. Milk purchased from various persons.
- W. A., 29 years, 467, Warrington Road, Pemberton. Notified February 10th. Case commenced on February 4th, 1905. Removed to Sanatorium on February 10th, 1905. 2 living and 2 sleeping rooms occupied by 2 adults and 2 children. Patient worked at Park Lane Collieries. Surroundings: Open space at front of house unpaved, ground falls to houses, privy midden, no back door. Milk from farm adjoining.
- S. J., aged 26 years, 59, Brookhouse Street. Notified February 18th, 1905. Case commenced on February 10th. Removed to Sanatorium on February 18th, 1905. 2 living and 3 sleeping rooms, occupied by 2 adults and 2 children. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Wood's, Lower Ince.
- S. K., 14 years, 176, Worsley Mesnes. Notified February 18th, 1905. Case commenced on February 7th. Isolated at home. 2 living and 2 sleeping rooms, occupied by 5 adults. Patient worked at Brown's Factory, Tipping Street. Surroundings: Yard part flagged, drains trapped, privy midden. Milk purchased from Hodgkinson and Hodge's.
- S. M., aged 33 years, bk. 32, Warrington Road. Notified February 21st, 1905. Case commenced on February 7th. Removed to Sanatorium on February 21st, 1905. 1 living and 1 sleeping room, occupied by 2 adults and 4 children. Patient works at Park Lane Collieries.

Surroundings: Yard flagged, drains trapped, privy midden, back to back house. Milk from Hurst's.

- B. D., aged 4 years, 180, Worsley Mesnes. Notified on February 21st, 1905. Case commenced on February 13th. Isolated at home. 2 living and 2 sleeping rooms, occupied by 2 adults and 4 children. Surroundings: Unpaved yard, defective drainage, privy midden. Milk from Hodgkinson and Hodge's.
- R. H., aged 51 years, 3, Hope Street. Notified on February 21st, 1905. Case commenced on February 11th, 1905. Removed to Sanatorium on February 21st, 1905. Patient a fruiterer. Surroundings: Defective surface of yard, pail closet, drains trapped, accumulation of refuse at rear. Milk from Fairhurst's.
- E. M., 1 year, 47, Kendal Street. Notified February 27th, 1905. Case commenced on February 10th. Isolated at home. 2 living and 3 sleeping rooms, occupied by 2 adults and 2 children. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Scholefield's.
- M. M., aged 10 years, 79, Gt. George Street. Notified February 27th, 1905. Case commenced on February 10th, 1905. Removed to the Sanatorium on February 27th, 1905. 2 sleeping and 2 living rooms, occupied by 2 adults and 1 child. Patient was removed to this house from an insanitary house in Hallgate, while suffering from the disease. Surroundings: Yard flagged, drains choked, pail closet. Patient attends National School. Milk from Barnes's.
- W. T. R., aged 18 years, 31, Duke Street, Pemberton. Notified March 1st, 1905. Case commenced on February 20th. Isolated at home. 2 living and 2 sleeping rooms, occupied by 3 adults and 5 children. Patient worked at Blundell's Collieries. Surroundings: Yard part flagged, drains trapped, privy midden. Milk from Finney's.



- A. J., aged 22 years, 66, Darlington Street East. Notified March 3rd, 1905. Case commenced on February 16th, 1905. Removed to Sanatorium on March 2nd, 1905. 2 living and 3 sleeping rooms, occupied by 6 Adults and 4 children. Patient is brother-in-law to the case that was removed from No 59, Brookhouse Street, on February 18th, 1905, may have contracted the disease from there. Surroundings: Yard flagged and tiled, drains trapped, pail closet. Milk from Wood's, of Ince.
- M. M., aged 36 years, 63, Brookhouse Street. Notified March 8th, 1905. Case commenced February 27th, 1905. Removed to Sanatorium on March 8th, 1905. Patient has been nursing a case of fever at No. 59, Brookhouse Street. 2 living and 3 sleeping rooms, occupied by 2 adults and 2 children. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Barton's.
- J. S., aged 16 years, 9, Alfred Street, Pemberton. Notified March 10th, 1905. Case commenced on February 26th, 1905. Removed to Sanatorium March 10th, 1905. Patient worked at Blundell's Collieries. 2 living and 2 sleeping rooms, occupied by 3 adults and 3 children. Surroundings: Yard part flagged, drains trapped, privy midden. Stable built against house, walls and ceilings very dirty. Milk purchased from various persons.
- Mrs. C., aged 21 years, 85, Hallgate. Notified on March 21st, 1905. Case commenced on March 11th, 1905. Removed to Sanatorium on March 21st, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults. Patient had nursed her sister who was removed from 79, Great George Street, on February 27th, 1905, to the Sanatorium suffering from the same disease. Surroundings: Open yard, and unpaved, drains trapped, pail closet. Milk from Barnes's.



- M. C., aged 29 years, 517 Ormskirk Road, Pemberton. Notified March 22nd, 1905. Patient had been suffering from Rheumatic Fever for some time before commencing with this disease. Removed to Sanatorium on March 22nd, 1905. 2 living and 2 sleeping rooms, occupied by 6 adults. Patient worked in the Mantle Department at Coop and Co's., Dorning Street. Milk from Hogg's.
- A. H., aged 9 years, 19, Duke Street, Pemberton. Notified April 10th, 1905. Case commenced on March 25th, 1905. Isolated at home. Patient attends St. Paul's School. 2 living and 2 sleeping rooms, occupied by 2 adults and 2 children. Surroundings: Yard flagged, drains trapped, privy midden. Milk, condensed.
- W. B., aged 70 years, 259, Scholes. Notified on April 17th. Case commenced on March 28th, 1905. Isolated at home. 2 living and 3 sleeping rooms, occupied by 2 adults. Patient is a draper at this address. Yard flagged, drains trapped, pail closet. Milk from Johnson's, at Blackrod.
- J. G., aged 14 years, 18, Byrom Street. Notified May 4th, 1905. Case commenced on April 20th, 1905. Removed to Sanatorium on May 4th. 1 living and 2 sleeping rooms, occupied by two adults and 6 children. Surroundings: Yard flagged, drains trapped, and pail closet. Milk from Hodson's.
- W. L., aged 27 years, Union Workhouse. Notified May 5th, 1905. Case isolated at Workhouse.
- C. B., aged 34 years, Infirmary. Notified May 8th, 1905. Case commenced on April 22nd, 1905. Removed to Sanatorium on May 8th, 1905. Patient was removed to the Infirmary from No. 6, Brown Street, Bradshawgate. This house was found to be in a filthy condition, the Street is unpaved, and the drains are defective.

J.S., aged 9 years, Golden Lion, Wallgate. Notified May 12th, 1905. Case commenced on May 2nd, 1905. Isolated at home. Large house, occupied by 4 adults and 4 children. Patient attends National School. Surroundings: Yard flagged, drains trapped, water closets. This house has only recently been built and the walls, &c., were not properly dry. Milk from Fairhurst's.

W.H., aged 8 years, 6 Princess Street. Notified May 18th, 1905. Case commenced on May 9th, 1905. Removed to Sanatorium on May 18th. 2 living and 2 sleeping rooms, occupied by 2 adults and 7 children. Patient attends Presbyterian School. Surroundings are insanitary, yard part flagged, pail closets (deft.), defective drains. Milk from O'Donahue's.

E. W., aged 38 years, 10, Moorfield Street. Notified on May 22nd, 1905. Case commenced on May 15th. Removed to Sanatorium on May 22nd. 2 living and 2 sleeping rooms, occupied by 2 adults and 4 children. Surroundings: Yard part flagged, drains trapped, pail closets. Milk from Gerard's.

E. T., aged 2 years, 5, Weston Street. Notified May 27th, 1905.

H. T., aged 15 years, 5, Weston Street. Notified May 27th, 1905. Cases commenced on May 21st and 22nd. Removed to Sanatorium on May 27th, 1905. 2 living and 2 sleeping rooms, occupied by 1 adult and 4 children. Children attend St. Mary's School. Surroundings: Yard flagged, drains trapped, pail closets. Milk from Thompson's and Neary's.

E. G., aged 30 years, 70, Pool Street. Notified on May 30th, 1905. Case commenced on May 23rd. Isolated at home. 2 living and 3 sleeping rooms, occupied by 4 adults. Surroundings: Pail closet, yard flagged, drains trapped. Milk, Britnell's.



- J. D., aged 29 years, Infirmary. Notified on June 5th, 1905. Case isolated at the Infirmary.
- J. W. O., aged 5 years, 1, Bradshaw Street. Notified on June 15th, 1905. Case commenced on June 7th. Removed to the Sanatorium on June 16th, 1905. 2 living and 2 sleeping rooms, occupied by 4 adults and 1 child. Patient attends Whelley School. Surroundings: Yard tiled, but defective, drains trapped (want of grid to gulley), water closet. Milk from Winstanley's.
- P. B., aged 19 years, 1, Walmsley Avenue. Notified June 19th. Case commenced on June 2nd, isolated at home. 2 living and 3 sleeping rooms, occupied by 4 adults and 4 children. Patient works at Worsley Mesnes colliery. Surroundings: Yard flagged, drains trapped, waste water closet, which was choked at the time patient sickened. Milk—condensed.
- S. D., aged 14 years, 118, Whelley. . Notified on June 28th. Case commenced on June 19th. Removed to Sanatorium on June 28th. Occupied two houses, 116 and 118, Whelley, which contain 3 living and 4 sleeping rooms, 7 adults and 1 child. Surroundings: Yard paved, drains trapped, water closet. Milk from Winnard's.
- M. L., aged 4 years, 10, Windsor Street. Notified July 10th, 1905. Patient sickened on May 20th, 1905. Isolated at home. 2 living and 2 sleeping rooms, occupied by 2 adults and 5 children. Surroundings: Yard unpaved, drains trapped, pail closet, want of grid to gulley, defective surface of wall around slop-stone pipe. Milk from Neary's.
- W. C., aged 5½ years, 12, Gilroy Street. Notified July 15th, 1905. Case commenced on July 10th, 1905. Removed to Sanatorium on July 15th. 2 sleeping and 2 living rooms, occupied by 2 adults and 6 children. Patient attended St. Catherine's School. Surroundings: Yard paved, drains trapped, waste water closet. Milk from Winstanley's.



- E. T., aged 17 years, Royal Infirmary. Notified 15th July, 1905. Isolated at the Infirmary.
- H. C., aged  $3\frac{1}{2}$  years, 12, Gilroy Street. Notified July 20th. Case commenced on July 16th, 1905. Removed to the Sanatorium, July 29th, 1905. 2nd case. 1st case notified on July 15th, 1905.
- M.B., aged 13 years, 37, Prescott Street. Notified on July 27th. Case commenced on July 23rd. Removed to the Sanatorium on July 27th. 2 living and 2 sleeping rooms, occupied by 5 adults. Patient works at Worsley Mesnes Ironworks. Surroundings: Yard part flagged, drains trapped, pail closet. Milk from Letman's.
- A. C., aged 19 years, 113, Little Lane. Notified August 1st, 1905. Case commenced on July 22nd, and was removed to the Sanatorium on August 1st, 1905. 2 living and 2 sleeping rooms, occupied by 3 adults. Patient works at May Mill in the Spinning room. Surroundings: Yard paved, drains trapped, privy midden. Milk from Smith's.
- J. F., aged 28 years, 1a, Driving Lane. Notified August 5th, 1905. Case commenced on July 25th. Removed to the Sanatorium on August 5th, 1905. 1 living and 1 sleeping room, occupied by 2 adults and 5 children. Surroundings: Yard flagged, drains trapped, pail closet. Milk purchased from various people. Patient died on August 15th, 1905, in the Sanatorium.
- T. A. J., aged 32, years, 9, Upper Dicconson Street. Notified on August 11th, 1905. Case commenced on August 4th. Isolated at home. Large house, occupied by 5 adults. Patient is a butcher, and works for Henry Sawbridge, Market Street. Surroundings: Yard flagged, defective drains, w.c. inside, pail in yard. Milk from Dunn's. Patient died at home on August 15th, 1905.

R. H. W., aged 24 years, 4, Mason Street. Notified on August 12th. Case commenced on August 4th. Removed to Sanatorium on August 12th, 2 living and 3 sleeping rooms, occupied by 6 adults and 1 child. Patient works at Eckersley's mills, is a painter and plumber. Surroundings: Yard flagged, drains trapped, pail closets. Milk from Wilkinson's.

T. D., aged 27 years, 22, Alfred Street, Pemberton. Notified on August 14th, 1905. Case commenced on August 9th. Removed to the Sanatorium on August 15th, 1905. 1 living and 1 sleeping room, occupied by 2 adults. Patient worked at Garswood Hall Collieries, and is a stoker at the boilers on the surface, complained of great heat while working. Surroundings: Yard paved, privy midden, drains trapped. Milk from Bond's.

J. S., aged 7 years, 26, Miry Lane. Notified on August 14th, 1905. Case commenced on July 26th. Isolated at home. 2 living and 2 sleeping rooms, occupied by two adults and 6 children. Patient attended St. Thomas's School, Clayton Street. Surroundings: Open yard, and unpaved, drains trapped, pail closet. Milk from Littler's.

M. A., aged 42 years, 13, Billinge Road, Pemberton. Notified August 14th, 1905. Case commenced on July 29th, 1905. Isolated at home. 2 living and 3 sleeping rooms, occupied by 1 adult and 3 children. Surroundings: Yard flagged, defective drains and privy midden. Milk from Richardson's.

C. M., aged 25 years, 106, Poolstock. Notified August 15th, 1905. Case commenced August 8th, Isolated at home. 2 living and 3 sleeping rooms, occupied by 7 adults and 1 child. Patient works at Eckersley's mills, in beaming room. Surroundings: Yard flagged, drains trapped, waste water closet. Milk from Hodge's.



W. G., aged 25 years, 38, Adelaide Street. Notified August 16th. Case commenced on July 8th. Removed to the Sanatorium on August 15th. 2 living and 2 sleeping rooms, occupied by 4 adults and 1 child. Patient in the Militia, had been to Camp, got a cold there and was unwell on returning. Surroundings: Open yard paved, drains trapped, pail closet. No milk used. House in dirty condition. Case died on August 24th, 1905.

J. B., aged 39 years, 6, Crawford Terrace. Notified on August 21st. Case commenced August 8th. Removed to Sanatorium on August 21st, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 6 children. Patient worked at Mr. Riley's, Wheelwright, Whelley, as a blacksmith. Had been to London for a holiday, and sickened immediately on returning. He complained of the condition of the house where he lodged at. Surroundings: Unpaved yard, pail closets, drains trapped. Milk from Langton's.

E. S., aged 22 years, 21, Seven Stars Road. Notified on August 21st, 1905. Case commenced on August 4th. Isolated at home. 2 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Surroundings: Yard flagged, drains trapped, water closet, street unpaved. Patient had been recently confined. Milk not used.

J. M., aged 24 years, 6, Moorfield Street. Notified August 25th, 1905. Case commenced on August 10th, 1905. Removed to the Sanatorium August 25th. 2 living and 2 sleeping rooms, occupied by 5 adults and 3 children. Surroundings: Yard part flagged, drains trapped, pail closet. Case of Enteric Fever occurred at No. 10, Moorfield Street, on May 22nd. Patient is a Collier and works at the Moss Hall Colliery. Milk from Connor's and McKay's.



- J. B., aged  $3\frac{1}{2}$  years. Notified on August 23rd, 1905, of 2, Dorset Street. Removed to Sanatorium on August 23rd. 1 living and 1 sleeping room, occupied by 2 adults and 3 children. Surroundings: Insanitary, defective drainage, defective surface of yards of adjoining property, back to back house.
- P.B., aged 33 years, 2, Dorset Street. Notified September 1st, 1905.
- B. B., aged 5 years, 2, Dorset Street. Notified September 1st, 1905.
- M. A. B., aged 6 years, 2, Dorset Street. Notified September 1st, 1905. They are the 2nd, 3rd, and 4th cases respectively of the 2, Dorset Street.
- W. M., aged 39 years, 1st case, 11a, New Square. Notified August 29th.
- G. M., aged  $6\frac{1}{2}$  years, 2nd case, 11a, New Square, Notified August 29th. Removed to Sanatorium on August 29th, 1905. Cases commenced on the 19th and 20th respectively. 1 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Surroundings: No through ventilation, no back door, no yard, pail closet, s.s.p. not trapped. Milk from Barnes's.
- W. C., aged 15 years. Notified September 4th, 1905, of 7, New Square. Case commenced on August 28th, 1905. Removed to the Sanatorium. 2 living and 6 sleeping rooms, occupied by 3 adult lodgers and 7 children. Milk from Barnes's. Surroundings: No soil-pipe ventilation. House in dirty condition.
- J. D., aged 9 years, 6, Church Street, Pemberton. Notified August 30th. Case commenced August 2nd, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 4 children. Surroundings: Drainage trapped, privy too near back door. paved street. Patient isolated at home.

- A. C., aged 20 years, 7, Wilcock Street. Notified September 1st. Case commenced on August 25th, 1905. Removed to Sanatorium. 2 living and 2 sleeping rooms, occupied by 4 adults and 2 children. Milk from Williams's. Surroundings: Drainage trapped and good, pail closet, defective paving in yard, and flagging in kitchen and scullery.
- P. G., aged 15 years, 17, Newark Street. Notified September 2nd, 1905. Case commenced on August 19th, 1905. Isolated at home. 2 living and 3 sleeping rooms, occupied by 4 adults and 5 children. Surroundings: Drainage good, defective flagging in the yard, accumulation of brick refuse in the yard. Milk from Gill's.
- J. B., aged 24 years, 1, First Avenue. Notified September 5th, 1905. Case commenced August 28th. Removed to Sanatorium on September 5th, 1905. 2 living and 3 sleeping rooms, occupied by 3 adults and 3 children. Patient works at Rolling Mills. Surroundings: Yard flagged, drains trapped, water closet. Milk, Nestle's
- J. M., aged 31 years, 216, Woodhouse Lane. Notified September 7th, 1905. Case commenced August 28th. Removed to Sanatorium on September 7th, 1905. 2 living and 3 sleeping rooms, occupied by 6 adults. Patient works at Blundell's Collieries. Other cases have occurred in men who have worked at these pits. Also had two previous cases in Moorfield Street, which is in the same block of property as this house. Surroundings: Yard flagged, drains trapped, pail closet. Special inspection was made of this property but no serious defects were found. Milk from Gill's and Ashton's. Case died on September 15th, 1905.
- G. W., aged 14 years, Infirmary. Notified on September 7th, 1905. Case from Golborne. Isolated at the Infirmary.



- T. S., aged 29 years, 5, Factory Street, Pemberton. Notified September 11th. Case commenced on August 11th. Removed to Sanatorium September 11th, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Patient works at Blundell's Collieries. Case at 216, Woodhouse Lane, also worked at this pit, also others; case also occurred at No. 6, Church Street, Pemberton, which is immediately back to this house. Surroundings: Yard surface part flagged, defective, privy midden within 10 feet of back door. Drains trapped. Milk from Charnock's.
- K. W., aged 12 years, 1, Factory Street, Pemberton. Notified September 11th. Case commenced September 4th. Removed to Sanatorium September 11th. 2 living and 2 sleeping rooms, occupied by 6 adults and 4 children. Patient attends St. John's School, and had been visiting No. 5, Factory Street, where she probably contracted the disease. No through ventilation to this house, also in a very dirty condition. Surroundings: Same as No. 5, Factory Street. Milk from Land's.
- T. F., aged 50 years, 28, Poolstock. Notified September 11th. Case commenced on August 28th. Isolated at home. 2 living and 3 sleeping rooms, occupied by 5 adults and 2 children. Patient works at Pearson and Knowles's Collieries, complained where he worked was very hot. Case of Enteric Fever occurred at No. 1, Walmsley Avenue, which is immediately behind this house, on June 19th. Surroundings: Yard flagged, drains trapped, waste water closet (which was choked a short time ago), unpaved passage at rear. Milk from Britnall's and Letman's. Case died on September 14th, 1905.
- A. G., aged 10 years, 32, Bentinck Street, Pemberton. Notified September 13th, 1905. Case commenced August 21st. Too ill for removal. 2 living and 2 sleeping rooms, occupied by 6 adults and 3 children. Patient attends St. Paul's School. Surroundings: Open unpaved yard, drains trapped, privy midden. Milk from Land's.



M. R., aged 12 years, 2, Wright's Yard, Fleet Street. Notified September 11th. Case commenced on September 3rd. Removed to Sanatorium on September 13th 1905. 1 living and 2 sleeping rooms, occupied by 2 adults and 5 children. Patient attends St. John's School. Surroundings: Open unpaved yard, drains trapped, privy midden, near the houses. No through ventilation. Milk purchased from various persons.

M.C., aged 48 years, 9, Bankes Street. Notified September 14th. Case commenced on September 3rd. Removed to Sanatorium on September 14th. 2 living and 2 sleeping rooms, occupied by 4 adults and 1 child. Patient worked as contractor at Pearson and Knowles's Colliery. Case that occurred at No. 28, Poolstock also worked at these pits. Surroundings: Yard flagged, drains trapped, water closet. Milk from Plover's.

M. M., aged 7 years, 1, Fleming's Yard, Ormskirk Road. Notified on September 16th, 1905. Case commenced on September 10th. Removed to the Sanatorium on September 16th, 1905. Patient attends Highfield School. 2 living and 2 sleeping rooms, occupied by 1 Adult and 5 children. Patient has no mother, and child of 13 years has to clean the house and look after the other children, so the house was only in a moderate condition. Surroundings: Unpaved yard, which is not drained, privy midden, house drains trapped. Milk purchased from various persons.

J. G., aged 20 years, 7, Vine Street. Notified September 16th, 1905. Case commenced on August 17th, 1905. Isolated at home. 2 living and 2 sleeping rooms, occupied by 3 adults. Patient works at Lindsay Pit. Had only removed to this house from New Springs a few days before he sickened. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Norris's.

- S. E. S., aged 29 years, 222, Whelley. Notified September 16th. Case commenced on September 9th. Removed to Sanatorium on September 16th. 2 living and 2 sleeping rooms, occupied by 2 adults and 2 children. Surroundings: The land at the rear of the house is 3 or 4 feet higher than the level of the house floor, yard bricked, drains trapped, water closet. Milk from Winstanley's.
- A. W., aged 42 years, 4, Turner's Yard, Goose Green. Notified September 18th, 1905. Case commenced August 20th. Removed to Sanatorium on September 18th, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 6 children. Patient, a collier, works at Park Lane collieries, and complains of the place where he worked being very hot. Surroundings: Yard unpaved, drains trapped, privy midden. Milk from Land's and Smith's.
- J. J., aged 27 years, "Thornwood" Somerville Road, Notified September 18th. Case commenced on August 13th. Isolated at home. 3 living and 4 sleeping rooms, occupied by 4 adults. Patient had visited the Isle of Man and has been ailing since return. Works at the Williams Deacon Bank. Surroundings: Yard flagged, drains trapped, water closet (inside house). Milk from Turner's.
- J. L., aged 21 years, 13, New Square. Notified September 19th, 1905. Case commenced on September 12th. Removed to Sanatorium September 19th. 1 living and 1 sleeping room, occupied by 2 adults and 1 child. Patient had been visiting Mills, 11a, New Square, where there was 2 cases of the disease. Surroundings: Yard paved, drains trapped, pail closet, no through ventilation. Special inspection made of this property. Condensed milk.



- M. E. M., aged 5 years, 1, Fleming's Yard. Notified September 20th. Case commenced on September 15th. Removed to Sanatorium September 20th. 2nd case. 1st case notified on September 16th, 1905.
- E. B., aged 27 years, 4, Lyon's Yard, Ironmonger Lane. Notified on September 20th, 1906. Removed to Sanatorium on September 20th. Case commenced September 6th. 1 living and 1 sleeping room, occupied by 2 adults and 2 children. Surroundings: Yard paved, middenstead in yard, drains trapped, pail closet, cellar below living room has not been used for a number of years, ashhouse door required, no through ventilation. Milk from O'Donahue.
- A. T., aged 30 years, 8, Smethurst Street, Pemberton. Notified on September 20th. Case commenced on September 15th, 1905. Removed to Sanatorium September 21st. 2 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Surroundings: Yard paved, privy midden, drains trapped. Milk from Charnock's.
- E. H., aged 8 years, 304, Ormskirk Road. Notified September 22nd. Case commenced on September 10th. Removed to Sanatorium September 22nd. 2 living and 4 sleeping rooms, occupied by 3 adults and 7 children. Surroundings: Yard flagged, drains trapped, privy midden. Complained of stench when privy midden was last emptied. 4 children attend St. Cuthbert's School. Milk from Hogg's.
- H. S., aged 28 years, 23, Charles Street. Notified September 22nd. 2 living and 3 sleeping rooms, occupied by 4 adults. Patient had only returned from a visit to London a few days before he commenced with the disease. Worked at Coop's, Wholesale Clothiers, as a Cutter. Surroundings: Yard part flagged, pail closet, drains trapped. Milk from Jameson's.



- M. J. F., aged 27 years, 18, Grayson's Yard. Notified September 25th. Case commenced on September 15th. Removed to Sanatorium September 25th, 1905. 1 living and 1 sleeping room, occupied by 2 adults and 1 child. Surroundings: Drains trapped, no through ventilation, want of grid to gulley, yard paved, pail closet, stable adjoins house and patient complains of stench arising from same. Milk from Sutton's.
- J. L., aged 24 years, 16, Cecil Street. Notified September 25th, 1905. Case commenced September 16th, 1905. Removed to Sanatorium September 25th. Patient works at Patent Manure Works, which adjoins Wigan Coal & Iron Co.'s works at Ince. Surroundings: Yard flagged, drains trapped, pail closet, defective wall round sink waste pipe. Milk from Winnard's.
- J. W., aged 12 years, 4, Turner's Yard, Warrington Road, Pemberton. Notified September 27th. Case commenced on September 19th. Removed to Sanatorium September 27th. 2nd case. Previous case notified September 18th, 1905.
- A. F., aged 34 years, 7, Vine Street. Notified September 29th. Case commenced September 22nd. Isolated at home. 2nd case. 1st case notified on September 16th, 1905.
- M. M., aged 62 years, 60, Ellesmere Road. Notified September 29th. Case commenced September 21st. Isolated at home. 2 living and 3 sleeping rooms, occupied by 6 adults. Surroundings: Yard flagged, drains trapped, privy midden, which was very wet, kitchen floor flagged but very damp. Milk from Charnock's
- J. N., aged 8 years, 5, Little London. Notified October 3rd. Case commenced September 24th. Removed to Sanatorium October 3rd, 1905. 2 living and 2 sleeping rooms, occupied by 3 adults and 4 children. Case attends St. John's School. Surroundings: No yard, drains trapped, street unpaved, pail closet, defective bedroom window. Milk from Mason's.

- T. T., aged 5 years, 14, Duke Street. Notified October 5th, 1905. Case commenced September 7th. Isolated at home. 2 living and 2 sleeping rooms, occupied by 3 adults and 1 child. Patient attends St. Michael's School. Surroundings: Open yard, paved and flagged, drains trapped, pail closet, defective roof, several back to back houses in yard at rear. Milk from Barnes's.
- A. H., aged 17 years, 5, Miry Lane. Notified October 7th. Case commenced October 1st. Removed to Sanatorium October 7th. 2 living and 3 sleeping rooms, occupied by 3 adults and 3 children. Patient works in the Spinning room at Eckersley's Mill. Surroundings: Open yard, flagged, pail closet, drains trapped. Milk from Wilkinson's.
- J. G., aged 20 years, 32, Bentinck Street, Pemberton. Notified October 7th. Case commenced October 17th. Removed to Sanatorium October 17th. 2nd case. 1st case notified on September 13th. Patient works at Worsley Mesnes Colliery.
- J. B., aged 38 years, 42, Barton Street, Pemberton. Notified October 17th, 1905. Case commenced on October 7th. Isolated at home. 1 living and 1 sleeping room, occupied by 2 adults and 7 children. Patient works at Higginbottom's Norley Colliery. Surroundings: Insanitary property, unpaved yard, defective drains, privy midden, no through ventilation. Special Inspection made. Milk from Charnock's.
- T. W., aged 5 years, 16, Upper Morris Street. Notified October 20th. Case commenced on October 12th. Isolated at home. Too ill for removal. 2 living and 2 sleeping rooms, occupied by 3 adults and 4 children. Patient attended at St. Catherine's School. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Barnes's.



- T. G., aged 19 years, 662, Ormskirk Road. Notified October 21st, 1905. Case commenced on October 10th. Isolated at home. 2 living and 3 sleeping rooms, occupied by 4 adults and 2 children. Patient works at the L. & Y. Rly. Goods Yard. Surroundings: Yard part flagged, drains trapped, uncovered privy midden. Milk from Charnock's.
- C. B., aged 20 years, 1, Swift's Yard. Notified October 21st, 1905. Case commenced on October 11th. Removed to Sanatorium October 21st, 1905. 2 living and 3 sleeping rooms, occupied by 5 adults. Patient did not follow any regular occupation. Surroundings: Yard paved, pail closet, drains trapped. Milk from Lewis's.
- W. L., aged 51 years, 13, Cooper's Row. Notified October 23rd, 1905. Case commenced October 19th. Isolated at home. 1 living and 1 sleeping room, occupied by 2 adults. Patient has not been working for some time. Surroundings: Insanitary property, no through ventilation, open yard, badly paved, pail closet, drains choked. No milk used.
- H. M., aged 9 years, 41, Northumberland Street, Pemberton. Notified October 24th, 1905. Case commenced September 28th. Too ill for removal. Case died. 2 living and 2 sleeping rooms, occupied by 4 adults and 2 children. Patient attended St. Paul's Schools. Surroundings: Yard flagged, privy midden, drains trapped. Milk from Phythian's.
- A. T., aged 3 years, 10, Enfield Street, Pemberton. Notified October 25th. Case commenced on October 11th. Too ill for removal. Case died. Other children attend St. John's School, Pemberton. 2 living and 3 sleeping rooms, occupied by 8 adults and 4 children. Surroundings: Yard flagged, privy midden, drains trapped. Milk from Ormesher's and Kilshaw's.



- E. B., aged 31 years, 93, Woodhouse Lane. Notified October 31st. Case commenced on October 22nd. Removed to Sanatorium October 31st. 2 living and 2 sleeping rooms, occupied by 2 adults and 1 child. Surroundings: Yard bricked and flagged, drains trapped, pail closet, house very damp. Milk from Leather's.
- M. C., aged 6 years, 9 Lime Street. Notified November 1st, 1905. Case commenced on October 22nd. Removed to Sanatorium November 1st. 2 living and 2 sleeping rooms, occupied by 2 adults and 5 children. Patient attended St. George's School. Surroundings: Yard unpaved, drains trapped, pail closet, defective spouts, walls require pointing. Milk from Charlton's.
- W. P., aged 4 years, 7, York Street East. Notified November 2nd, 1905. Case commenced on October 21st. Removed to Sanatorium November 2nd, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Surroundings: Yard unpaved, drains trapped, pail closet. Milk purchased from various persons.
- A. L., aged 15 years, 12, Vine Street. Notified November 6th, 1905. Case commenced on October 16th. Removed to Sanatorium November 6th, 1905. 2 living and 3 sleeping rooms, occupied by 6 adults and 2 children. Patient is engaged in domestic duties at home. Surroundings: Yard bricked and flagged, pail closet, drains trapped, unpaved passage. Milk from Norris's.
- A. B., aged 15 years, 15, Schofield Lane. Notified November 6th, 1905. Case commenced on October 23rd. Removed to Sanatorium November 6th, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 5 children. Patient works at Brown and Haigh's Wholesale Clothiers. Surroundings: Yard paved, drains trapped, pail closet. Milk from Taylor's.

- B. A., aged 10 years, 7, Douglas Street, Pemberton. Notified November 6th, 1905. Case commenced October 31st. Removed to Sanatorium November 7th, 1905. 2 living and 2 sleeping rooms, occupied by 5 adults and 4 children. Patient attended St. Mark's School. Surroundings: Yard paved, drains trapped, privy midden. Milk from Leach's.
- J. B., aged 15 years, 1, Swift's Yard. Notified November 7th, 1905. Case commenced on October 31st. Removed to Sanatorium November 7th. Patient did not follow any regular occupation. 2nd case. 1st case notified on October 21st.
- E. D., aged 10 years, 12, Lime Street. Notified November 8th. Case commenced on November 1st. Removed to Sanatorium November 8th. 1 living and 1 sleeping room, occupied by 2 adults and 5 children. Patient attended St. George's School. May have contracted the disease from No. 9, Lime Street, where there has been a case. Surroundings: Yard flagged, drains trapped, pail closet, back to back house. Milk from Charlton's.
- T. D., aged 21 years, Union Workhouse. Notified November 8th. Case Isolated at the Workhouse.
- H. T., aged 35 years, 33, Cambridge Street. Notified November 9th, 1905. Case commenced on October 24th. Removed to the Sanatorium on November 9th. 2 living and 2 sleeping rooms, occupied by 2 adults and 3 children. Patient works at Garswood Hall Colliery. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Plover's.
- J. R. C., aged 13 years, 9, Lime Street. Notified November 13th. Case commenced on November 4th. Removed to Sanatorium on November 13th. 2nd case. 1st case notified on November 1st.

- J. F., aged 28 years, 18, Lime Street. Notified November 13th. Case commenced on November 1st. Removed to Sanatorium November 13th. 2 living and 2 sleeping rooms, occupied by 3 adults and 2 children. Patient works at Ryland's Mill, as a stripper. Surroundings: Yard flagged, pail closet, drain choked at rear. Milk from Grimshaw's.
- J. O. B., aged 13 years, 9, Stopforth Street. Notified November 14th. Case commenced October 23rd. Isolated at home. 2 living and 3 sleeping rooms, occupied by 2 adults and 3 children. Patient had left school but did not follow any employment. Surroundings: Yard flagged, drains trapped, pail closet. Milk from Barton's.
- F. T., aged 15 months, 10, Enfield Street, Pemberton. Notified November 14th. Case commenced on November 5th. Isolated at home. 2nd case. 1st case notified on October 25th.
- T. W., aged 20 years, 3, Wallace Lane. Notified November 15th. Case commenced on November 7th. Removed to Sanatorium on November 15th. 2 living and 2 sleeping rooms, occupied by 5 adults. Patient worked at Grange Colliery, Hindley. Surroundings: Yard paved, drains trapped, water closet. Milk from Skillon's.
- J. W., aged 29 years, 119, Warrington Road, Pemberton. Notified November 15th. Case commenced on November 2nd. Removed to Sanatorium on November 15th. 2 living and 2 sleeping rooms, occupied by 6 adults. Patient worked at Pemberton Collieries, but has not worked for some weeks owing to the strike. Surroundings: Yard part flagged, drain trapped, privy midden. Milk from Richardson's.



- E. K. A., aged 7 years, 12, School Street. Notified on November 17th. Case commenced on November 7th. Removed to Sanatorium on November 17th. 2 living and 2 sleeping rooms, occupied by 2 adults and 2 children. Patient attends St. George's School. Surroundings: Yard surface defective, part paved, bricked and flagged, drains trapped, pail closet, ashtubs require covers. Cases of Enteric Fever have occurred in Lime Street, in yard which is immediately at the rear of this house. Milk from Dobson's.
- W. M., aged 31 years, 84, Scot Lane. Notified November 20th. Case commenced on October 31st. Removed to Sanatorium November 20th. 2 living and 3 sleeping rooms, occupied by 2 adults and 2 children. Patient works as carter for Mr. Peter Fairhurst, provision dealer, Wallgate. Surroundings: Yard part flagged, drains trapped, privy midden. Milk from Waring's.
- T. B., aged 11 years, Powell Street. Notified November 25th, 1905. Case commenced on November 17th. Removed to Sanatorium on November 25th. 2 living and 3 sleeping rooms, occupied by 3 adults and 6 children. Patient attends Wesleyan School. Surroundings: large yard, unpaved, drains trapped, water closet. Milk from O'Donahue.
- E. E. A., aged  $2\frac{3}{4}$  years, 168, Frog Lane. Notified November 25th. Case commenced November 15th. Removed to Sanatorium November 25th. 2 living and 3 sleeping rooms, occupied by 4 adults and 5 children. Children attend National School. Surroundings: Yard unpaved, pail closet, drains trapped. Milk from Gill's.
- H. T., aged 45 years, 10, Enfield Street, Pemberton. Notified November 28th. Case commenced November 19th. Removed to Sanatorium November 29th. 3rd case. 1st and 2nd case notified on October 25th, and November 14th. Patient nursed both these cases.

- A. B., aged 4 years, 4, Gaskell's Yard, New Street, Pemberton. Notified November 30th. Case commenced on November 23rd. Isolated at home. 2 living and 2 sleeping rooms, occupied by 4 adults and 1 child. Patient attended Wesleyan School, Orrell. Surroundings: Yard paved, drains trapped, privy midden. Milk from R. Gore's.
- A. B., aged 4½ years, 148, Hardybutts. Notified December 5th, 1905. Case commenced on November 21st. Removed to Sanatorium on December 5th. 2 living and 3 sleeping rooms, occupied by 4 adults and 3 children. Patient attended St. Catherine's School. Surroundings: Yard part flagged, pail closet, drains trapped. Milk from Haddock's.
- J. H., aged 12 years, 11, Stanley Street, Pemberton. Notified December 9th, 1905.
- H. H., aged 6 years, 11, Stanley Street, Pemberton. Notified December 9th, 1905. Cases commenced on November 27th and December 1st respectively. Both cases removed to Sanatorium on December 9th, 1905. 2 living and 2 sleeping rooms, occupied by 2 adults and 6 children. Patients both attended St. Mark's School. Surroundings: Unpaved open yard, privy midden, drains trapped, Milk purchased from various persons.
- T. C., aged 6 years, 519, Scot Lane, Pemberton. Notified December 13th. Case commenced on December 4th. Removed to Sanatorium on December 13th. 2 living and 3 sleeping rooms, occupied by 2 adults and 3 children. Patient attended Marsh Green School. Surroundings: Open yard, unpaved, drains trapped, large open privy midden. No milk used.
- G. H., aged 9 years, 11, Stanley Street, Pemberton. Notified December 14th. Case commenced on December 10th. Removed to Sanatorium on December 14th. 3rd case. 1st and 2nd cases notified on December 9th, 1905.



- M. M. R., aged 11 years, 56, York Street. Notified December 15th, 1905. Case commenced on December 1st. Isolated at home. 2 living and 3 sleeping rooms, occupied by 5 adults and 1 child. Patient attended St. Joseph's School. Surroundings: Yard tiled, pail closet, drains trapped. Milk from O'Donahue's.
- E. F., aged 31 years, 5, Jockey Terrace. Notified December 16th. Case commenced on December 7th. Removed to Sanatorium December 16th. 2 living and 2 sleeping rooms, occupied by 4 adults and 3 children. Patient works at Taylor's Mill, in the No. 3 Cardroom. Patient had nursed her brother, who was removed to the Sanatorium on November 13th, suffering from Enteric Fever. Surroundings: Open yard, paved, drains trapped, pail closet. Milk purchased from various persons
- J. T. H., aged 22 years, 1, Harrison's Yard, Lime Street. Notified December 18th, 1905. Case commenced December 11th. Removed to Sanatorium on December 18th. 1 living and 1 sleeping room, occupied by 2 adults and 2 children. Patient a coal miner. This house is back to back with No. 12, Lime Street, where a case of Enteric Fever was notified on November 8th, another case also occurred in the same yard on November 13th, (18, Lime Street). Milk purchased from Charlton's.
- E. M., aged 57 years, 134, Whelley. Notified December 26th, 1905. Case commenced on December 16th, case died December 24th, 1905. 2 living and 4 sleeping rooms, occupied by 2 adults. Patient was in the grocery business. Surroundings: Open yard, tiled, drains trapped, pail closet. Milk various.
- W. H., aged 11 years, 16, Birkett Bank Terrace. Notified on December 25th. Case commenced December 17th. Too ill for removal to the Sanatorium. 2 living and 2 sleeping rooms,



occupied by 4 adults and 5 children. Patient attended St. Catherine's School. Surroundings: Open yard, paved, pail closet, drains trapped, house damp owing to the position in which it is situated. Milk purchased from Haddock's.

H. B., aged 9 years, Powell Street. Notified December 30th. Case commenced December 9th. Removed to Sanatorium on December 30th. A previous case occurred at this house and was removed to the Sanatorium on November 25th.

### DIARRHŒA.

Number of Deaths . . . . .	139	In 1904 . . .	108
Mortality of Population . .	1.57	„ . . .	1.68

We have an increase in the number of deaths from Zymotic Diarrhœa, but this is more apparent than real, for we had a rate of 1.68 in 1904, but we have this year only a rate of 1.57. This apparent increase is due to our enlarged Borough. Pemberton being now included.

### AGE INCIDENCE, 1905.

<i>Month.</i>	<i>Deaths.</i>	<i>0-1 year</i>	<i>1-5 years</i>	<i>Over 5 years</i>
January . . . . .	1	1	—	—
February . . . . .	2	1	1	—
March . . . . .	1	1	—	—
April . . . . .	3	3	—	—
May . . . . .	—	—	—	—
June . . . . .	3	3	—	—
July . . . . .	24	23	1	—
August . . . . .	69	52	15	2
September . . . . .	27	18	8	1
October . . . . .	9	5	3	1
November . . . . .	—	—	—	—
December . . . . .	—	—	—	—
Total . . . . .	139	107	28	4

# PARTICULARS RE DIARRHŒA DEATHS.

FIGURES IN FIRST COLUMN INDICATE DIARRHŒA DEATHS IN SAME HOUSE FROM JANUARY, 1901, TO DECEMBER, 1905.

<i>Sex</i>	<i>Age</i>	<i>Address</i>	<i>How Fed</i>	<i>W.C.</i> <i>a/c</i>	<i>Yard, &amp;c.</i>	<i>Remarks</i>
M.	3 months	83, Greenough St. ..	Bottle and breast	Pail	Paved ..	
F.	2 & 9 m's.	26, Moss St. (P) ..	Ordinary ..	Privy	Flagged ..	
M.	8 months	116, Scholefield Lane.	Breast ..	Pail..	Part paved .	
F.	1 month	33, Sovereign Road .	Bottle ..	Pail..	Flagged ..	Weak from birth
F.	8 months	4, Greenough's Gardens	Bottle (cow's)	Pail..	Flagged ..	Street unpaved
M.	11 months	27, School Lane	Breast ..	Pail..	Flagged ..	
F.	3 months	15, Lindsay St. ..	Bottle and breast	Pail..	Flagged ..	Street unpaved Weak from birth
M.	6 months	Marsh St. (P) ..	Bottle (condensed)	Privy	Flagged ..	
1 F.	9 months	11, Church Terrace ..	Bottle (cow's)	W.C.	Flagged ..	Street unpaved
F.	3 months	13, Crafton St. (P) ..	Bottle (condensed)	Privy	Flagged ..	Weak from birth
M.	3 months	15, Florence St. ..	Bottle (tube) (cow's)	Pail..	Part flagged	
M.	1 & 6 m's.	27, Swann St. ..	Bottle (cow's)	Pail..	Unpaved (open)	
M.	11 months	62, Warrington Lane	Bottle (cow's)	Pail..	Flagged ..	
M.	6 months	15, Wignall St. ..	Bottle (cow's)	Pail..	Flagged ..	
F.	9 months	52, Clayton St. ..	Bottle (cow's)	Pail..	Part flagged & open	
M.	4 months	112, Beech Hill Lane.	Breast ..	Pail..	Part flagged	
1 F.	5 months	7, Church Terrace ..	Bottle (cow's)	W.C..	Flagged ..	
1 M.	9 months	41, Clayton St. ..	Bottle (tube) (condensed)	Pail..	Unpaved ..	
F.	9 months	10, Lower Morris St. .	Bottle (condensed)	Pail..	Flagged and paved	
M.	11 months	7, Douglas St. ..	Breast ..	Pail..	Flagged ..	
M.	8 months	16, Carlton St. (P) ..	Breast ..	Privy	Part paved	
F.	2 months	47, Brackley St. (P)..	Bottle and breast (tube)	Privy	Part paved & open	
F.	6 months	73, Wallgate ..	Bottle (cow's) (tube)	W.C..	Flagged ..	Child brought from Barrow 6 days before death
F.	6 months	45, Wilcock St. ..	Bottle ..	W.C..	Flagged ..	Weak from birth
M.	10 months	34, Taylor St. ..	Bottle (condensed) (tube)	Pail..	Flagged ..	
F.	4 months	10, Cherry Croft ..	Breast ..	Pail..	Unpaved ..	
2 M.	3 months	4, Gee St. ..	Bottle (condensed)	Pail..	Part flagged	
F.	6 months	9, Benson's Yard ..	Bottle (cow's).	Pail..	Part flagged	Weak from birth

## RE DIARRHŒA DEATHS—Continued.

FIGURES IN FIRST COLUMN INDICATE DIARRHŒA DEATHS IN SAME HOUSE FROM  
JANUARY, 1901, TO DECEMBER, 1905.

<i>Sex</i>	<i>Age</i>	<i>Address</i>	<i>How Fed</i>	<i>W.C. a/c</i>	<i>Yard, &amp;c.</i>	<i>Remarks</i>
F.	5 months	37, Caunce St. ..	Bottle (cow's).	Pail..	Badly paved	Weak from birth
F.	3 weeks	50, Ellesmere Rd. (P)	Breast ..	Privy	Part paved .	
M.	10 months	762, Ormskirk Rd. (P)	Bottle (condensed)	Privy	Part paved	
M.	6 months	203, Poolstock L. (P).	Breast ..	Privy	Paved ..	
F.	7 months	168, Ormskirk Rd. (P)	Bottle (cow's).	Privy	Flagged ..	Weak from birth
M.	9 months	17, Leeds St. ..	Bottle (tube) .	Pail..	Flagged ..	Weak from birth
F.	9 months	3, Gee St. ..	Breast and bottle (tube)	Pail..	Part flagged	
M.	1 month	8, Molyneux St. ..	Breast and bottle (cow's)	Pail..	Flagged ..	Weak from birth
M.	1 month	17, Wignall St. ..	Bottle (cow's)	Pail..	Flagged ..	
F.	1 month	3, Woods St. ..	Breast ..	Pail..	Flagged ..	Weak from birth
F.	2 months	5, High St. ..	Breast ..	Pail..	Part paved .	
M.	2 months	107, Darlington St. E.	Bottle ..	W.C..	Flagged ..	
M.	1 & 4 m's.	35, Golborne St. ..	Neaves' food .	Pail..	Paved (deft).	
F.	10 months	14, Caunce St. ..	Breast ..	Pail..	Flagged ..	
M.	7 months	34, Lower Morris St. .	Breast ..	Pail..	Flagged ..	No through ventilation
M.	12 months	7, Swann St. ..	Breast ..	Pail..	Unpaved ..	
M.	1 & 9 m's.	46, Queen St. ..	Bottle (cow's).	Pail..	Paved ..	
F.	5 months	13, Pitt St. ..	Bottle (tube & condensed)	Pail..	Paved ..	Weak from birth
M.	6 months	26, Ormandy's Houses	Bottle (tube, cow's and condensed)	Pail..	Part flagged	Weak from 5 weeks of age Back to back house, street unpaved
F.	5 months	26, Spring St. ..	Bottle (tube) .	Pail..	Unpaved ..	
M.	2 months	12, Fletcher St. ..	Bottle (tube & cow's)	W.C..	Flagged ..	Weak from birth
F.	6 months	70, Lower Morris St. .	Breast ..	Pail..	Unpaved ..	Weak from birth
F.	1 month	22, Victoria St. ..		Pail..	Flagged ..	Person had left house
M.	4 months	3, Barnes' Court ..	Breast and bottle (cow's)	Pail..	Paved ..	No through ventilation. Weak from birth
F.	3 months	7, Cumberland St. ..	Bottle ..	W.C..	Flagged ..	Weak from birth
M.	8 months	26, Cambridge St. ..	Bottle (condensed)	Pail..	Flagged ..	
F.	3 months	7, Atherton St. ..	Bottle (tube, cow's)	Pail..	Paved ..	
M.	7 months	134, Wallgate ..	Bottle ..	W.C..	None ..	Weak from birth
M.	5 months	48, Bentinck St. (P) .	Breast ..	Privy	Part paved .	



## RE DIARRHŒA DEATHS—Continued.

FIGURES IN FIRST COLUMN INDICATE DIARRHŒA DEATHS IN SAME HOUSE FROM  
JANUARY, 1901, TO DECEMBER, 1905.

<i>Sex</i>	<i>Age</i>	<i>Address</i>	<i>How Fed</i>	<i>W.C. a/c</i>	<i>Yard, &amp;c.</i>	<i>Remarks</i>
M.	2 months	115, Poolstock L. (P).	Breast and bottle	Privy	Paved ..	
M.	1½ years	4, Stanley St. (P) ..	Bottle (cow's & arrowr't)	Privy	Part paved .	Back to Back house
M.	9 months	140, Poolstock L. (P).	Bottle ..	Privy	Paved ..	
F.	6 months	31, Alfred St. (P) ..	Bottle (condensed)	Privy	Part paved .	
M.	1 & 5 m's.	23, Hopwood St. (P) .	Bottle and breast	Privy	Tiled ..	Back to back house
M.	54 years	33, Queen St. (P) ..		Privy	Part paved .	
F.	5 months	751, Ormskirk Rd. (P)	Bottle .. (pat. food)	Privy	Part paved .	
F.	9 months	50, Hey St. ..	Bottle (tube & cow's)	Pail..	Flagged ..	Weak from birth
F.	3 months	4, Taylor St. ..	Bottle (tube & condensed)	Pail..	Tiled ..	Mother worked in the mill
F.	10 months	73, Gidlow Lane ..	Bottle (tube & condensed)	Pail..	Part flagged & bricked	
M.	11 months	1, Hunt St. ..	Bottle (tube & cow's)	W.C..	Flagged ..	
F.	4 months	2a, Duke St. ..		Pail..	Flagged ..	
M.	3 & 5 m's.	1, Leyland St. ..	Cow's ..	Pail..	Flagged ..	Tenant com- plained of the smell from wagons of bone in siding
F.	1 month	77, Platt Lane ..	Bottle ..	Pail..	Open field .	
M.	5 months	5, Golden Cross Yard.	Bottle (tube, cow's)	Pail..	Paved and defective	
M.	1 year	30, Linney Street. ..	Porridge ..	W.C..	Flagged ..	
M.	3 months	65, Wilcock St. ..	Breast ..	Pail..	Flagged ..	Weak from birth
F.	3 months	200, Scot Lane (P) ..	Bottle (tube & cow's)	Privy	Part flagged	
F.	4 months	17, Princess St. (P) ..	Bottle ..	Privy	Paved ..	
M.	10 months	110, Great George St.	Bottle (sterilized)	Pail..	Flagged ..	Weak from birth closet adjoins house
M.	9 months	44, Lime St. ..	Bottle (tube) .	Pail..	Badly paved	
M.	7 months	54, Prescott St. ..	Bottle (tube, cow's, condensed)	Pail..	Defective ..	
F.	9 months	1, Riley's Yard ..	Breast ..	Pail..	Part flagged	No through ventilation
F.	1 & 2 m's.	17, Taylor St. ..	Breast ..	Pail..	Part flagged	

## RE DIARRHŒA DEATHS—Continued

FIGURES IN FIRST COLUMN INDICATE DIARRHŒA DEATHS IN SAME HOUSE FROM  
JANUARY, 1901, TO DECEMBER, 1905.

<i>Sex</i>	<i>Age</i>	<i>Address</i>	<i>How Fed</i>	<i>W.C.</i> <i>a/c</i>	<i>Yard, &amp;c.</i>	<i>Remarks</i>
F.	1 & 8 m's.	10, Rainford's Buildings	Bottle (tube & cow's)	Pail..	Part flagged	No through ventilation
M.	11 months	92, Miry Lane ..	Breast ..	Pail..	Flagged (open)	
M.	9 months	2, Tickle St. ..	Breast ..	W.C..	Flagged ..	
F.	8 months	437 Warrington Rd. (P)	Breast and bottle	Privy	Paved ..	
M.	7 months	8, Herbert St. ..	Bottle (tube & Nestle's)	Pail .	Unpaved ..	Weak from birth another bad.
M.	7 months	6, Holt St. (P) ..	Breast ..	Privy	Part paved .	Back to back house
M.	1 month	43, Barton's Yd. (P) .	Bottle (cow's).	Privy	Yard: back part paved, front paved	
F.	9 months	5, Queen St. (P) ..	Bottle (tube, cow's)	Privy	Paved and open	Weak from birth, mother works in mill
M.	5 months	29, Clayton St. ..	(Condensed) Bottle (tube)	Pail..	Paved ..	Mother works in mill
M.	1 & 7 m's.	21, Lea St. ..	Breast ..	Pail..	Unpaved ..	
M.	4 months	12, Warnford St. ..	Breast ..	W.C..	Flagged ..	Weak from birth
F.	67 years	11, Mason St. ..		W.C..	Flagged ..	
M.	1 & 7 m's.	31, Lyon St. ..	Ordinary ..	Pail .	Flagged ..	Child sickened at Great George St & removed to Lyon St.
F.	9 months	53, Kirkless St. ..	Bottle (tube & condensed)	Pail..	Flagged ..	Mother works out child nursed
F.	1 year	8, Yates St. ..	Breast ..	Pail..	Bricked & flagged	
F.	25 days	40, Hardybutts ..	Breast and bottle	Pail..	Flagged ..	Weak from birth
M.	1 & 2 m's.	253, Whelley ..	Breast ..	W.C..	Part flagged	
M.	1 & 11 m's.	44, Bentinck St. (P) .	Breast ..	Privy	Paved ..	
M.	8 months	68, Ellesmere Rd. (P)	Breast and bottle (cow's)	Privy	Part flagged	Weak from birth
F.	1 & 8 m's.	38, Bentinck St. (P) .	Breast ..	Privy	Paved ..	
M.	1 year	38, Northumberland St. (P)	Breast .	Privy	Paved ..	
F.	2 months	28, Windsor St. ..	Condensed (spoon)	Pail .	Bricked ..	
M.	1 & 7 m's.	33, Prescott St. ..	Ordinary food.	Pail..	Part flagged	Mother works out
M.	1 & 10 m's.	30, Prescott St. ..	Ordinary food.	Pail..	Flagged ..	Weak from birth
M.	9 months	56, Prescott St. ..	Breast ..	Pail..	Flagged ..	
F.	1 & 5 m's.	38, Oxford St. ..	Ordinary food.	Pail..	Flagged ..	



## RE DIARRHŒA DEATHS—Continued

FIGURES IN FIRST COLUMN INDICATE DIARRHŒA DEATHS IN SAME HOUSE FROM  
JANUARY, 1901, TO DECEMBER, 1905.

<i>Sex</i>	<i>Age</i>	<i>Address</i>	<i>How Fed</i>	<i>W.C. a/c</i>	<i>Yard, &amp;c.</i>	<i>Remarks</i>
M.	3 months	33, Boyswell Lane ..	Bottle (tube & condensed)	Pail..	Part flagged	Weak from birth
M.	1 month	17, Shaw St. ..	Bottle (cow's)	WWC	Flagged ..	Weak from birth
F.	8 months	1, Walmsley Avenue	Breast ..	WWC	Flagged ..	Case of Enteric at this house
M.	76 years	1a, Longshoot ..		Pail..	Unpaved ..	Invalid for years through an accident
M.	6 months	66, Warrington Rd. (P)	Bottle (tube, cows')	Privy	Part paved .	
M.	6 months	14, Fleet St. (P) ..	Bottle (tube, cow's)	Privy	Part paved .	Weak from birth
F.	5 months	413, Warrington Rd..	Breast and spoon fed	Privy	Paved ..	
M.	5 months	33, Shelmerdine St. .	Breast ..	Pail..	Flagged ..	Weak from birth
M.	3 months	6, St. Patrick St. ..	Breast ..	Pail..	Flagged ..	
M.	1 & 1 m'h	40, Bridgewater St. (P)	Breast ..	Privy	Flagged ..	
M.	7 months	22a, Alfred St. (P) ..	Bottle (cow's).	Privy	Part paved .	Weak child
F.	11 months	28, Duke St. (P) ..	Bottle (cow's).	Privy	Part paved .	
1 F.	8 months	45, Queen St. ..	Bottle (condensed)	Pail..	Flagged ..	Weak from birth
F.	7 months	6, Frith St. ..	Bottle (tube & condensed)	Pail	Flagged ..	
M.	3 months	20, Leigh St. ..	Breast ..	Pail..	Unpaved ..	Weak from birth
F.	1 & 9 m's.	6, Swift's Square ..	Breast ..	Pail..	Paved ..	No through ventilation
F.	5 months	3, Sydney St. (P) ..	Breast ..	Privy	Part paved .	
M.	1 & 1 m'h	53, Billinge Road (P)	Bottle (tube & cow's)	Privy	Part paved .	
M.	10 months	Warrington Rd. (P) .	Breast ..	W.C..	Flagged ..	Weak from birth
F.	1 year	1, Wall's Yard, Lea St.	Breast ..	Pail..	Flagged ..	Back to back house
M.	5 months	13, St. Patrick St. ..	Breast ..	Pail..	Flagged ..	
F.	1 & 4 m's.	4, Bridge End ..	Bottle (cow's).	Pail..	Flagged ..	Weak from birth
F.	2 years	4, Bentinck St. (P) ..	Breast ..	W.C..	Paved ..	
M.	2 months	108, Beech Hill Lane.	Bottle ..	Pail..	Tiled ..	Weak from birth
M.	55 years	8, Ashton St. ..		Pail..	Paved ..	
M.	1 & 2 m's.	60, Upper Morris St. .	Breast ..	Pail..	Flagged ..	No through ventilation
F.	9 months	11, Tunstall Lane (P)	Breast ..	Privy	Flagged ..	
F.	2 months	69, Warrington Rd. (P)	Breast ..	Privy	Part flagged	
M.	8 months	70, Wilcock St. ..	Breast ..	Pail..	Part flagged & open	
F.	11 months	1, Regent St. (P) ..	Bottle (tube) .	Privy	Paved ..	
F.	1 month	15, Douglas St. (P) ..	Bottle ..	Privy	Paved ..	A twin



## SUMMARY.

Bottle and Breast Fed	..	..	..	..	..	11
„ Cow's Milk	..	..	..	..	..	31
„ Condensed	..	..	..	..	..	17
„ Other Foods	..	..	..	..	..	4
„ Sterilized	..	..	..	..	..	1
Breast only	..	..	..	..	..	46
Bottle, Cow's and Condensed	..	..	..	..	..	2
„ Condensed and Spoon Fed	..	..	..	..	..	1
„ Cow's and Arrowroot	..	..	..	..	..	1
„ Only	..	..	..	..	..	14
Breast and Spoon Fed	..	..	..	..	..	1
Ordinary Food	..	..	..	..	..	3

Streets in Wigan in which Deaths from Diarrhoea  
have occurred.

	1905	1904		1905	1904
Ashton Street .....	1	1	Longshoot .....	1	
Atherton Street .....	1		Lower Morris Street	3	2
Barnes Court, Queen St.	1		Lyon Street .....	1	2
Benson's Yard, Gidlow			Mason Street .....	1	
Lane .....	1	2	Miry Lane .....	1	3
Beech Hill Lane .....	2		Molyneux Street ...	1	
Boyswell Lane .....	1	1	Ormandy's Houses .	1	
Bridge End .....	1		Oxford Street .....	1	
Cambridge Street .....	1		Pitt Street .....	1	1
Caunce Street .....	2	1	Platt Lane .....	1	2
Church Terrace .....	2		Prescott Street ....	4	2
Clayton Street .....	3	2	Princess Street ....	1	1
Cherry Croft, Wigan			Queen Street .....	2	3
Lane .....	1		Riley's Yard, Queen		
Cumberland Street ....	1		Street .....	1	
Darlington St. East....	1		Rainford's Buildings	1	
Darlington Street .....	1		Scholefield Lane ...	1	2
Douglas Street.....	1		School Lane .....	1	1
Duke Street .....	1	1	Shaw Street .....	1	
Fletcher Street .....	1		Shelmerdine Street .	1	1
Florence Street .....	1		Sovereign Road ...	1	
Frith Street .....	1		St. Patrick Street ..	2	1
Gee Street .....	2		Swann Street .....	2	
Gidlow Lane .....	1		Swift's Square,		
Golborne Street .....	1		Scholefield Lane..	1	
Golden Cross Yard ....	1		Spring Street.....	1	1
Greenough Street .....	1	2	Taylor Street.....	3	
Greenough Gardens ...	1		Tickle Street .....	1	
Great George Street ...	1		Upper Morris Street	1	
Hardybutts .....	1	2	Victoria Street ....	1	1
Herbert Street .....	1		Walmsley Avenue..	1	
Hey Street .....	1		Warnford Street ...	1	
High Street .....	1		Warrington Lane ..	1	1
Hunt Street .....	1		Wallgate .....	2	
Kirkless Street .....	1		Wignall Street ....	2	
Layland Street .....	1		Wilcock Street ....	3	
Lea Street .....	1	3	Windsor Street ....	1	1
Leeds Street.....	1		Wall's Yard, Lea		
Leigh Street .....	1		Street.....	1	
Lindsay Street.....	1		Whelley.....	1	5
Lime Street .....	1	3	Woods Street.....	1	
Linney Street .....	1	1	Yates Street.....	1	

Streets in Pemberton in which Deaths from Diarrhœa  
have occurred.

	1905	1904
Alfred Street .....	2	
Barton's Yard .....	1	
Bentinck Street .....	4	1
Billinge Road .....	1	2
Brackley Street .....	1	
Bridgewater Street .....	1	
Carlton Street .....	1	
Douglas Street .....	1	2
Duke Street .....	1	1
Ellesmere Road .....	2	
Fleet Street .....	1	2
Grafton Street .....	1	
Holt Street .....	1	
Hopwood Street .....	1	
Marsh Street .....	1	
Moss Street .....	1	
Northumberland Street .....	1	1
Ormskirk Road .....	3	7
Poolstock Lane .....	3	2
Queen Street .....	2	1
Regent Street .....	1	
Scot Lane .....	1	2
Stanley Street .....	1	
Sydney Street .....	1	
Tunstall Lane .....	1	
Warrington Road .....	5	1
Total .....	40	



It will be seen that August and September give us the greatest number of deaths, and, as in previous years, these are in children under the age of one year.

### DIPHTHERIA.

Number of Notifications .....	49
Number of deaths, including Croup ....	10
Mortality per 1,000 of population .....	·11

We have had an increase in the number of cases notified, namely, 49, against 9 in 1904, and the mortality against these cases is also increased ·11 per 1,000 of population, against ·062. The following table shows the number of cases notified and the number of deaths—

	<i>Notified.</i>	<i>Deaths.</i>
January .....	9	2
February .....	7	1
March .....	4	1
April .....	3	1
May .....	2	—
June .....	4	1
July .....	5	1
August .....	2	—
September .....	2	—
October .....	5	2
November .....	3	—
December .....	3	1
Total .....	49	10

The following is the result of the examinations bacteriologically made at the Thompson Yates Laboratory:

Number of cases, 17.

Streptococci present, 2; Bacillus absent, 9.

Staphylococci present, 5; Bacillus present, 1.

### ERYSIPELAS.

Number notified .....	92
Number of deaths.....	6
Mortality per 1,000 of population .....	·067

We have an increase in the number of deaths from Erysipelas, 6 against 1, showing an increase in the mortality rate.

List of houses in which cases of Erysipelas has occurred during  
1905.

<i>Address</i>	<i>Cause</i>	<i>Condition of yard &amp; other remarks</i>
414, Ormskirk Rd., Pemberton ..	Not known ..	Privy midden, part flagged yard
Wigan Grammar School House ..	Probably from cold ..	
100, Tunstall Lane, Pemberton ..	„ ..	Privy midden, yard paved
22, Church Street ..	„ ..	Pail, flagged yard, drains trapped
12, Douglas Street East ..	„ ..	„ „ „
14, Moorfield Street ..	„ ..	„ „ „
170, Ormskirk Rd., Pemberton ..	Accident ..	Privy midden, partly paved yard, defective drainage
22, Holme Terrace ..	From cold ..	W.C., flagged yard, drains trapped
2, Caunce Street ..	„ ..	W.W.C., „ „
90, Prescott Street ..	„ ..	Pail „ „
4, Walmesley's Yard, Lime Street ..	Accident ..	Pail, part paved yard, defective drains
Infirmary ..		
„ ..		
409, Warrington Rd., Pemberton ..	Not known ..	Privy midden, open, paved yard
4, Highfield, Pemberton ..	„ ..	Privy midden, flagged yard
7, Church Terrace ..	Probably from cold ..	Water closet, flagged yard, and trapped drains
138, Poolstock Lane, Pemberton ..	Accident ..	Privy midden, flagged yard, trapped drains
22, Birkett Bank ..	Probably from cold ..	Waste water closet, flagged yard, trapped drains
11, Granville Street ..	Probably from a fall ..	Pail closet, tiled yard, drains trapped
17, Moorfield Street ..	Probably from cold ..	Pail closet, part paved yard, drains trapped
4, Whittaker's Yard, Wigan Lane ..	„ ..	
1, Ormesher's Yard, Clayton St. ..	„ ..	Pail closet, part flagged yard, back to back house. Drains trapped
159, Whelley ..	From paralysis in leg	Pail closet, drains trapped, no through ventilation
Whelley Lodge, Haigh Park ..	Accident ..	Pail closet, drains trapped, bricked yard
Infirmary ..		
138, Billinge Road, Pemberton ..	Cold ..	Unpaved yard
15, Charles Street ..	Probably from cold ..	Pail closet, defective flagging in yard, drains trapped
34, Dicconson Street ..	Unknown ..	
23, Alfred Street, Pemberton ..	From cold ..	Privy midden, unpaved yard, drains trapped
20, Thompson Street ..	Probably from cold ..	W.C., paved and flagged yard, drains trapped
Infirmary ..		

## ERYSIPELAS—CONTINUED.

<i>Address</i>	<i>Cause</i>	<i>Condition of yard &amp; other remarks</i>
53, Moss Terrace, Pemberton ..	Probably from cold ..	No yard, privy midden, trapped drains
32, Silver Street ..	From cold ..	Open yard, part flagged, pail closet, drains trapped
21, Higham Street ..	„ ..	
566, Ormskirk Rd., Pemberton ..	Probably from bad teeth	Partly flagged yard, privy midden, drains trapped
751, Ormskirk Rd., Pemberton ..	Probably from cold ..	Flagged yard, privy midden, drains trapped
566, Ormskirk Rd., Pemberton ..	Probably from first case	
9, Holt Street ..	Accident ..	Flagged yard, W.C., trapped drains
Newark Street ..	Probably from cold ..	Bricked yard, pail closet, choked drains
Eccleston Street ..	From cold ..	
4, Bridge End ..	Not known ..	Pail closet, part flagged yard, trapped drains
29, King Street ..		
23, Ellis Street ..	From cold ..	Paved yards, W.C.'s, trapped drains
253, Billinge Road, Pemberton ..	Accident ..	Privy midden, trapped drains
Infirmary ..		
32, Darlington Street ..	From cold ..	Pail closet, flagged yard, drains trapped
53, City Road, Pemberton ..	From cancer in breast	Choked and defective drainage, privy midden, defective roof
138, Billinge Road, Pemberton ..	From wound in nose	Part paved yard, privy midden, drains trapped
11, Atherton Street, Pemberton ..	From cold ..	Privy midden, open yard, and unpaved, trapped drains
66, Lorne Street ..	From wound in leg ..	Pail closet, flagged yard, drains trapped
14, Duke Street ..	From cold ..	paved yard, Pail closet, drains trapped
359, Warrington Rd., Pemberton ..	„ ..	Pail closet, open yard, drains trapped
23, Pagefield Street ..	„ ..	W.C., flagged yard, drains trapped
8, Snape Street ..	Probably from cold ..	Pail closet, flagged yard, drains trapped
10, Carlton Street ..	From cold ..	Pail closet, flagged yard
470, Ormskirk Rd., Pemberton ..	„ ..	Pail closet, paved yard
12, Richmond Street ..	Accident ..	Flagged yard, drains trapped, want of downspout
21, Letterewe Street ..	Probably from cold ..	Paved yard, pail closet, drains trapped
„ ..	Second case ..	
259, Billinge Road, Pemberton ..	Probably from scr'tch	
16, Hopwood Street, Pemberton ..	From cold ..	Privy midden, unpaved street, flagged yard
156, Great George Street ..	„ ..	Pail closet, part flagged yard, defective scullery roof



## ERYSIPELAS--CONTINUED.

<i>Address</i>		<i>Cause</i>	<i>Condition of yard &amp; other remarks</i>
134, Park Road	..	From wound	.. Flagged yard, W.C., drains trapped
10, Acton's Walk	..	Probably from cold	.. Flagged yard, pail closet, drain trapped
19, Mesnes Street	..	„	.. Flagged yard, W.C., drains trapped
6, Scott Street	..	„	.. Flagged yard, pail closet, drains trapped
11, Gilroy Street	..	„	.. Flagged and paved yard, W.W.C., drains trapped
7, Well Street	..	Accident	.. Part flagged yard, pail closet, sanitary defects
19, New Street, Pemberton	..	From cold	.. Privy midden, open yard—part flagged
92, Tunstall Lane, Pemberton	..	Probably from cold	.. Privy midden, part paved yard, drains trapped
2, Hardy's Yard, Longshoot	..	From cold	.. Pail closet, unpaved yard, no through ventilation
34, Alfred Street	..	„	.. Water closet, flagged yard
40, Adelaide Street	..	From injury	.. Pail, paved yard, drains trapped
10, Gore Street	..	Probably from cold	.. Privy midden, part flagged yard, drains trapped
27, Stuart Street	..	Not known	.. Water closet, flagged yard, drains trapped
48, Ormskirk Rd., Pemberton	..	Probably from cold	.. Privy midden, tiled yard
5, Vere Street	..	Accident	.. Pail closet, flagged yard, drains trapped
“ Shakespeare,” King Street	..	From cold	.. Water closet, cemented yard
31, Northumberland Street, Pemberton	..	„	.. Privy midden, paved yard
31, Lower Morris Street	..	Probably from cold	.. Pail closet, flagged yard, drains trapped
47, Barton Street, Pemberton	..	From cold	.. Privy midden, unpaved yard, house insanitary
35, Chancery Street	..	Probably from cold	.. Pail closet, bricked yard, drains trapped
15, School Street	..	Accident	.. Pail closet, yard flagged, drains trapped
182, Enfield Street, Pemberton	..	Probably from cold	.. Privy midden, unpaved yard, drains trapped
157, Gidlow Lane	..	From cold	.. Pail closet, flagged yard, drains trapped
9, Henry Street	..	From fall	.. Pail closet, flagged yard, drains trapped
7, Wiend	..	From blow	.. Flagged yard, common lodging house
19, Ingram Street	..	Probably from cold	.. Pail closet, part flagged yard, drains trapped
Infirmery	..	Two cases	..
4, Bk. Darlington Street	..	From cold	.. Pail closet, flagged yard, drains trapped
1, Garden Street	..	Probably from cold	.. Pail closet, flagged yard, drains trapped

## PUERPERAL FEVER.

Number of cases notified .....	16
Number of deaths .....	9
Mortality per 1,000 of population.....	·10

We have an increase in the number of cases notified, and an increase in the death-rate. None of the cases appear to have been communicated, and everything was done to prevent communication with others.

## SANATORIUM.

The arrangements made in the nursing department have been satisfactory, and the accommodation ample

The Decker Hospital has been sufficient for the Small Pox cases, and the improvements made, on its removal from the old site, have been of great advantage. The number of cases of Small Pox therein treated was three, with no deaths.

The number of infectious cases notified compulsorily is as follows:—

	<i>Notifications</i>	<i>Removed to Sanatorium</i>	<i>Died in Sanatorium</i>
Small Pox .....	3	3	—
Typhus.....	—	—	—
Scarlet Fever .....	325	207	5
Enteric .....	133	88	25
Diphtheria .....	49	—	—
Puerperal Fever .....	16	—	—
Cholera.....	—	—	—
Membranous Croup ..	—	—	—
Erysipelas .....	92	—	—
Other .....	—	13	2
Total .....	618	311	32

In the Sanatorium on December 31st, 1905, there were 34 patients, namely, Scarlet Fever 23, Enteric Fever 8, others 3.

	<i>Sm'illp'x</i>	<i>Scarlet</i>	<i>Enteric</i>	<i>Others</i>	<i>Total</i>
In-patients Jan. 1, 1905 .....	—	22	11	0	33
Admitted in 1905 .	3	207	88	13	311
Discharged „ .	3	200	68	5	276
Died „ .	—	5	25	2	32
In-pat. Jan. 1, '06	—	23	8	3	34

The number of deaths in the Sanatorium was 32; 5 died from Scarlet Fever and 25 from Enteric, and 2 others.

During the year there were 276 patients discharged, and 32 died, making a total of 308.

The number of days they were in was 12,101, or 38·9 days for each patient, against 36·1 days average for 1904.

The cost of maintenance was as follows :—

1905.	<i>Food.</i>			<i>Stimulants.</i>		
	£	s.	d.	£	s.	d.
January .....	46	16	5	8	9	4
February .....	40	13	7	6	6	5
March .....	34	15	3	10	5	3
April .....	22	17	4	10	4	0
May .....	21	1	5	6	11	6
June .....	26	11	6	9	1	8
July .....	47	10	9	8	3	6
August .....	48	5	6	5	7	7
September .....	39	11	4	13	4	2
October .....	43	7	5	14	14	3
November .....	24	4	5	12	16	5
December .....	56	9	4	14	14	3
Total .....	452	4	3	119	18	4

Cost per patient, 1905 .....	£1	9	0 $\frac{3}{4}$	£0	7	8 $\frac{1}{2}$
„ 1904 .....	£1	7	1	£0	8	1
„ 1903 .....	£1	12	0	£0	4	7
„ 1902 .....	£1	13	0	£0	4	9
„ 1901 .....	£1	9	10 $\frac{1}{4}$	£0	4	10 $\frac{1}{4}$
„ 1900 .....	£1	12	6 $\frac{3}{4}$	£0	4	3 $\frac{1}{2}$
„ 1899 .....	£1	12	4 $\frac{1}{2}$	£0	5	1 $\frac{1}{4}$
„ 1898 .....	£1	8	6 $\frac{1}{4}$	£0	3	11 $\frac{1}{2}$



The total cost of the Sanatorium is as follows :—

				<i>Average Cost per Patient.</i>		
	£	s.	d.	£	s.	d.
Master, Matron and Nurses . . . .	999	5	4	3	2	10
Porter, Repairs, &c. . . . .	1105	6	5	3	9	6
Patients' Keep. . . . .	452	4	3	1	8	5 $\frac{1}{4}$
Stimulants . . . . .	119	18	4	0	7	6 $\frac{1}{2}$
Medical Superintendent . . . . .	150	0	0	0	9	5
Clerk . . . . .	10	0	0	0	0	7 $\frac{1}{2}$
Ditto 1905. . . . .	2836	14	4	8	18	4 $\frac{3}{4}$
„ 1904. . . . .	2299	12	7	12	1	11 $\frac{1}{2}$
„ 1903. . . . .	2352	10	11	7	7	5 $\frac{1}{2}$
„ 1902. . . . .	2101	5	11	6	19	0 $\frac{3}{4}$
„ 1901. . . . .	1992	9	6	9	6	5 $\frac{3}{4}$
„ 1900. . . . .	2038	14	11	7	5	6
„ 1899. . . . .	1914	12	4	7	4	6 $\frac{3}{4}$
„ 1898. . . . .	1851	3	11	7	16	2 $\frac{1}{2}$
„ 1897. . . . .	1384	4	7	10	12	3 $\frac{1}{2}$
„ 1896. . . . .	1653	10	11	11	6	6 $\frac{3}{4}$

The Administrative Department cost :—

1905.	<i>Wages.</i>			<i>Board.</i>			<i>Total.</i>		
	£	s.	d.	£	s.	d.	£	s.	d.
January . . . . .	40	9	8	43	2	1	83	11	9
February . . . . .	38	1	8	39	9	0	77	10	8
March . . . . .	40	5	9	42	13	9	82	19	6
April . . . . .	41	11	5	43	9	6	85	0	11
May . . . . .	38	16	7	38	4	1	77	0	8
June . . . . .	42	5	0	42	14	0	84	19	0
July . . . . .	40	16	8	41	1	6	81	18	2
August . . . . .	40	6	8	44	6	6	84	13	2
September . . . . .	40	15	0	43	14	10	83	19	10
October . . . . .	40	15	0	44	6	6	85	1	6
November . . . . .	40	15	0	45	19	0	86	14	0
December . . . . .	40	15	0	45	1	2	85	16	2
Total . . . . .	485	13	5	513	11	11	999	5	4

## SANATORIUM STAFF.

Master.	2 Ward Maids.
House Keeper.	1 Housemaid-Waitress.
5 Nurses.	1 Kitchenmaid
5 Probationers.	1 Scullery Maid.
1 Laundress.	1 Porter and Gardener.
2 Assistant Laundresses	1 Assistant Gardener.

## PEMBERTON SANATORIUM.

1 Nurse.	1 Caretaker.
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TABLE OF ADMISSIONS AND DISCHARGES FOR 1905.

1905.	Admitted.					Discharged.					Died.							
	Small. pox.	Scarlet Fever.	Enteric	Typhus.	Others.	Total.	Small. pox.	Scarlet- Fever.	Enteric.	Typhus.	Others.	Total.	Smal Pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.
January ...	1	11	3	0	2	17	0	10	7	0	0	17	0	0	1	0	0	1
February ..	1	10	9	0	0	20	2	15	8	0	0	25	0	0	1	0	0	1
March ....	0	17	4	0	3	24	0	14	5	0	2	21	0	0	2	0	1	3
April .....	0	14	0	0	0	14	0	12	1	0	0	13	0	2	0	0	0	2
May.....	1	39	7	0	0	47	1	15	4	0	0	20	0	1	1	0	0	2
June .....	0	22	0	0	2	24	0	32	3	0	0	35	0	0	0	0	1	1
July .....	0	16	2	0	2	20	0	21	1	0	1	23	0	0	0	0	0	0
August .....	0	13	11	0	2	26	0	22	4	0	1	27	0	0	3	0	0	3
September .	0	9	22	0	0	31	0	12	10	0	1	23	0	0	8	0	0	8
October ...	0	19	4	0	1	24	0	13	10	0	0	23	0	1	2	0	0	3
November .	0	17	18	0	0	35	0	13	9	0	0	22	0	1	6	0	0	7
December .	0	20	8	0	1	29	0	21	6	0	0	27	0	0	1	0	0	1
Total ...	3	207	88	0	13	311	3	200	68	0	5	276	0	5	25	0	2	32

The Pemberton Hospital proved of useful service for isolating infectious cases not treated at the Whelley Sanatorium.

The number of patients admitted to the Hospital was 9:—5 Measles, 1 Puerperal Fever, 1 Diphtheria, 1 Erysipelas, and 1 Scarlet Fever with Whooping Cough. They all recovered.

Four of the cases were removed from the Wigan Union Workhouse, and two from the Royal Albert Edward Infirmary. One case of mixed infection (Scarlet Fever with Whooping Cough) was transferred from the Sanatorium.

Average stay at Hospital per case was 25 days. The nursing was efficiently carried out by Mr. and Mrs. Ward with nurses drafted from the Whelley Sanatorium when required.

#### Patients admitted to the Pemberton Hospital.

	<i>Name</i>	<i>Age</i>	<i>Admitted</i>	<i>Discharged</i>	
1	M.B. ..	6 years ..	Dec. 19th ..	Jan. 12th ..	Measles, Wigan U.
2	W.B. ..	4 „ ..	„ ..	„ ..	„ „
3	J.C. ..	2 „ ..	Mar. 21st ..	May 1st ..	„ „
4	N.S. ..	32 „ ..	Apr. 13th ..	Apr. 27th ..	Puerperal Fever
5	E.S. ..	3 „ ..	May 1st ..	May 31st ..	Scarlet & Wh'ping Cough
6	W.C. ..	$\frac{6}{12}$ „ ..	May 20th ..	June 20th ..	Measles, Wigan U.
7	J.B. ..	28 „ ..	June 1st ..	June 10th ..	Erysipelas, R. A. E. Infirmary
8	T.C. ..	3 „ ..	July 18th ..	Aug. 28th ..	Measles, do. (Admitted to R. A. E. Infirmary suffering from Pneumonia)
9	J.W. ..	19 „ ..	Nov. 25th ..	Dec. 2nd ..	Diphtheria



## CONSTITUTIONAL DISEASES.

### TUBERCULAR DISEASES.

Under the heading of Tubercular Diseases we include deaths from Consumptive Diseases, such as Phthisis, Pulmonalis, Tabes Mesenterica, Tubercular Meningitis, Wasting Diseases of Infants (Marasmus), and other Tubercular affections.

The number of deaths from Phthisis is 92, against 70 in 1904, and 74 in 1903. The number of deaths from other Tubercular affections is 37, against 26 in 1904, and 19 in 1903.

From Wasting Diseases of Infants we have 44 deaths against 59 in 1904.

The rates are as follows :—

Phthisis Pulmonalis .....	1·04	per 1,000 of population
Other Tubercular Diseases	·41	„
Wasting Diseases of Infants	·49	„

If taken together as Tubercular affections we have 173 deaths, or a rate of 1·95 per 1,000 of population.

### PHTHISIS AND TUBERCULAR DISEASES, BUT NOT INCLUDING MARASMUS.

The deaths occurred in the following wards :—

St. George's Ward .....	13
Lindsay Ward .....	4
St. Catherine's Ward .....	9
St. Patrick's Ward .....	11
St. Thomas's Ward .....	5
Poolstock Ward .....	6
Victoria Ward .....	9
St. Andrew's Ward .....	19
Swinley Ward .....	6
All Saints Ward .....	5
West Pemberton Ward .....	9
North „ Ward .....	7
Central „ Ward .....	7
South „ Ward .....	15
In Union Workhouse but belonging to Wigan .....	4

## PHTHISIS DEATHS, 1905

## No. of Cases.

Deaths previously of the same disease (parents or relations)	4
„ „ (brothers or sisters)	7
No. of Cases where separate bedroom occupied .. .. .	22
„ „ „ bed but others in same room..	32
„ „ „ others occupying same bed .. .. .	30
„ „ „ others occupying same room .. .. .	44
„ „ „ which cannot be traced .. .. .	17
Total number of sleeping rooms of houses affected .. ..	135
„ „ „ living rooms of houses affected .. ..	126
„ „ „ persons occupying same .. .. .	332
No. of cases where lodgers kept (overcrowding) .. ..	9
No of back to back houses .. .. .	9
No where sanitary defects found .. .. .	15
No. of cases where house found dirty .. .. .	1
„ „ „ patient occupied a cradle .. .. .	9
„ „ „ in Institutions .. .. .	2

## PHTHISIS DEATHS.

*Occupations of deceased persons.*

Cardroom hand	..	..	..	..	..	1
Weaver	..	..	..	..	..	2
Reeler	..	..	..	..	..	1
Spinner	..	..	..	..	..	1
Clogger's Turner	..	..	..	..	..	1
Clerk	..	..	..	..	..	1
Newsagent	..	..	..	..	..	1
Labourer	..	..	..	..	..	8
Stone Mason	..	..	..	..	..	1
Carter	..	..	..	..	..	3
Dataller	..	..	..	..	..	2
Winder	..	..	..	..	..	1
Stoker	..	..	..	..	..	2
Fireman in Mine	..	..	..	..	..	1
Miner	..	..	..	..	..	4
Scholar	..	..	..	..	..	8
Teacher	..	..	..	..	..	1
Domestics	..	..	..	..	..	17
Steam Engine Fitter	..	..	..	..	..	2
„ Hammer Driver	..	..	..	..	..	1
Iron Turner	..	..	..	..	..	1
Young Children	..	..	..	..	..	23
Could not be traced	..	..	..	..	..	9

## RHEUMATISM.

Rheumatism caused 12 deaths, against 12 deaths in 1904, and 7 in 1903, and we have 83 deaths from heart affections, against 63 in 1904, and 60 in 1903.

## LOCAL DISEASES.

Respiratory Diseases, such as Pneumonia and Bronchitis, caused 334 deaths, against 305 in 1904. Pneumonia caused 187, against 167; and Bronchitis caused 147, against 138.

## INQUESTS AND UNCERTIFIED DEATHS.

The number of Inquests for 1905 is 119, against 115 for 1904, and 106 in 1903, and the following verdicts have been recorded:—

1. Natural Causes .....	35
2. Accidents, burnt .....	16
,, poisoned .....	2
,, run over .....	1
,, scalded .....	2
,, colliery .....	14
,, fall downstairs .....	6
,, drowned .....	10
,, falls .....	2
,, railway .....	4
,, suffocation .....	2
,, others .....	16
3. Suicides, poison .....	1
,, hanging .....	3
,, cut throat.....	3
,, drowning .....	1
,, railway .....	1
	<hr/>
	119

There were 10 deaths uncertified in 1905, against 7 in 1904, and 10 in 1903. They were as follows:—

Premature Birth .....	3
Convulsions .....	3
Debility .....	1
Inanition .....	1
Syncope .....	1
Other .....	1





## PART III.

# GENERAL SANITARY WORK

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**FACTORY AND WORKSHOPS ACTS, 1892 to 1901**

**SHOP HOURS ACTS, 1892 to 1899**

**MEAT INSPECTION AND SLAUGHTER HOUSES**

**DAIRIES, COWSHEDS AND MILKSHOPS ORDER, 1885 & 1886**

**WATER SUPPLY AND RAINFALL**

**BLACK SMOKE NUISANCE**

**PROPERTY UNFIT FOR HUMAN HABITATION**

**UNPAVED YARDS AND PASSAGES**

**BOROUGH SURVEYOR'S DEPARTMENT**

**SCAVENGING**

**DISPOSAL OF SEWAGE**

**MIDWIVES ACT, 1902**

**EDUCATION ACT, 1902**

**APPENDIX**





FACTORY AND WORKSHOPS ACT,  
1901.

I have visited several of these workshops during the year in conjunction with Mr. Bishop (the Inspector). Dr. Fraser, D.P.H., who was Assistant Medical Officer of Health during the year, systematically inspected these. The Bakehouses have been regularly visited by Mr. Bishop, the Inspector, and I have inspected some when it was thought necessary.

Subjoined is Inspector Bishop's report.

I.—INSPECTION.

<i>Premises</i>	<i>No. of Inspections</i>	<i>Written Notices.</i>	<i>No. of Prosecutions</i>
Factories (including Factory Laundries) .. .. .	215	4	—
Workshops (including Work Shop Laundries) .. ..	817	35	—
Work Places .. .. .	—	—	—
Homeworkers' Premises ..	136	—	—
Total .. .. .	1168	39	—

2.—DEFECTS FOUND.

NUISANCES UNDER PUBLIC HEALTH ACT.

	<i>No. of Defects Found.</i>	<i>Remedied.</i>	<i>Referred H.M.I.</i>	<i>No. of Prosecutions.</i>
Want of Cleanliness.....	131	119	—	—
Want of Ventilation .....	2	2	—	—
Overcrowding .....	1	1	—	—
Want of Drainage of Floors .....	19	17	—	—
Other Nuisances .....	13	11	—	—
Sanitary { insufficient .....	1	1	—	—
accommodation { unsuitable or defective ..	6	5	—	—
{ not separate for sexes ...	1	1	—	—
<i>Offences under the Factory &amp; Workshop Act.</i>				
Illegal occupation of underground bakehouse..	1	1	—	—
Total .....	175	158	—	—

## 3.—OTHER MATTERS.

MATTERS NOTIFIED TO H.M. INSPECTOR.  
FACORIES.

	No.
Failure to Affix Abstract of the Factory and Workshop Act....	43
Action taken in matters referred by	Notified by H.M. Inspector ..... 6 Reports (of Action taken) sent to H.M.I. 4
H.M. Inspectors as remediable under	
the Public Health Acts, but not under	
the Factory Act (s. 5) .....	
Other .....	2
<hr/>	
Underground Bakehouses (s. 101) in use at end of year.....	7
<hr/>	

## HOMEWORK.

<i>Lists of Outworkers (Sec. 107) :</i>		<i>Lists.</i>	<i>No. of Outworkers.</i>	
Lists Received .....		52	127	
Addresses of Outworkers	{	Forwarded to other		
		Authorities .....	13	—
		Received from other		
		Authorities .....	1	—
<hr/>				
Workshops on the Register (s. 131) at the end of the year....			429	
Domestic Workshops.....			97	
Bakehouses .....			157	
			—	
Total number of Workshops on Register..			683	

## SHOP HOURS ACT, 1892-1899.

During the year 1905, I have been able to give but little time during the day to this Act. The shops visited were chiefly in the Pemberton District where the Act has not been in force.

One hundred and fifty-seven Shops were visited.

At twelve no young persons were employed, and sixty were domestic. At forty-nine Shops young persons were employed contrary to the Act by not having the Abstract exhibited, which were at once obtained.

Two proprietors have been cautioned for employing young persons in shops after having worked under the Factory and Workshop Act during the day.

Received one complaint *re* hours worked. After observations and visit I found the hours being worked were under the limit.

Observations *re* opening and closing of shops have been frequently taken, and I have reason to believe the hours are under the limit.

Seats for Shop Assistants Act, 1899, at two shops when visited seats were not provided. After attention had been called to the same the Act was complied with.

## MEAT INSPECTION AND SLAUGHTER-HOUSES.

The Slaughter-houses have been regularly and irregularly visited by the Inspectors; I have paid frequent visits also. I have also inspected meat in many of the shops.

I can repeat here that the inspection of meat can never be efficiently done till we have a Municipal Abattoir, where the beasts can be seen both before and after being killed.

There is no improvement in the existing private slaughter-houses, with the exception of one which has been rebuilt. This one, however, is mostly used for killing pigs.

## DAIRIES, COWSHEDS, AND MILK- SHOPS ORDER, 1885 AND 1886.

No action was taken last year to enforce the Bye-laws.

Subjoined here is Mr. Wood's report for the year.

Report of the Veterinary Inspector under the Dairies, Cowsheds, and Milkshops Order.

Wigan, February 12th, 1906.

Gentlemen,

In presenting my yearly report on the Cowsheds of the Borough and the Milch cows therein, I would like to emphasise what I have drawn attention to before,



namely, that while the whole of the Cowsheds and Milch Cows in the Borough are regularly inspected the greater portion of the milk drunk in the town comes from country districts where the Dairies, Cowsheds and Milkshops Order has not been adopted, and where consequently there has been no inspection either of cowsheds or cattle. It is true that the Authorities adopting the Act are increasing in number, but it would be of great advantage, not only in securing uniformity of procedure, but as a matter of public health if the "may" of the Act was altered to "shall" and if all udder diseases and not just those suspected to be tubercular were compulsorily notifiable.

As showing the necessity and value of inspections I would draw attention to the fact that the leading Authorities on Tuberculosis estimate that about 2 per cent. of the cows in the milking herds in the country are affected with Tuberculosis of the udder, but that where inspections are regular the proportion so affected varies from 0·2 % in London to 0·54 % in Manchester. This estimate is confirmed by my own experience in Wigan, where, during the last year, only 0·25 have been discovered affected with Tuberculosis of the udder.

But it should be remembered there are other diseases of the udder which render the milk especially dangerous to children, one form of Mastitis or inflammation of the udder being responsible for producing a milk capable of causing a fatal diarrhœa in children. If only the whole of the milk supply of the Borough were under supervision it would be interesting to discover whether infantile diarrhœa were less prevalent, but until this is the case, no reliable data could be obtained from such an enquiry.

With regard to the Pemberton portion of the Borough a start has been made and radical alterations been made in one cowshed, but until I receive a copy of the register containing a list of cowkeepers, no systematic or thorough inspection is possible.

Yours faithfully,

(Signed) WILLIAM WOODS.

## WATER SUPPLY.

The water has been of good quality, and the quantity only curtailed from 4th of August to October 15th, a period of 73 days.

I subjoin Mr. Orsman's report on the analysis.

Mr. Orsman's monthly reports from his analyses are as follows :—

*January.*—Hardness before boiling 10·5 degrees ; after 7 degrees. There is hardly any change in the composition of the water since last month. The water remains bright and clear on standing. (Wigan).

Hardness before boiling 11 degrees ; after 7·5 degrees. The above water is very similar to the Wigan Supply, the only material difference is that the albuminoids are slightly higher, being 0·08 parts against 0·06 parts per million. (Pemberton).

*February.*—Hardness before boiling 9 degrees ; after 5 degrees. The above water is softer and also contains less albuminoids than last month. The water is clear and does not deposit any sediment on standing. (Wigan).

*March.*—Hardness before boiling 9·5 degrees ; after 6 degrees. The water is very bright and clear, and practically the same as last month. (Wigan).

*April.*—Hardness before boiling 10 degrees ; after 6·5 degrees. The sample of water taken April 25th is slightly harder than last month, otherwise there is little change. (Wigan).

*May.*—Hardness before boiling 11 degrees ; after 7 degrees. There is little change from last sample, the water is clear and bright. (Wigan).

Hardness before boiling 15 degrees ; after 7·5 degrees. The above is harder and contains more dissolved solids than Pemberton water usually does. This is probably due to the dry weather and greater concentration of the water. (Pemberton).



*June.*—Hardness before boiling 10·5 degrees; after 7 degrees. The above water is clear and bright, and shows little change from the sample taken last month. (Wigan).

Hardness before boiling 14 degrees; after 7 degrees. The above water is rather hard, but is clear and bright. The albuminoids are low. (Pemberton).

*August.*—Hardness before boiling 11·5 degrees; after 7 degrees. The above water is slightly harder, but contains less albuminoids than last month. The water is clear and bright. (Wigan).

*September.*—Hardness before boiling 2 degrees; after 1 degree. The above is a very pure soft water (Thirlmere Supply).

Hardness before boiling 9·5 degrees; after 4·5 degrees. Although the above water is only slightly softer than last month, the other constituents are lower. The total solids have fallen, and the albuminoids are only about one half. The water is clear and bright (Wigan).

Hardness before boiling 14·5 degrees; after 8 degrees. (Pemberton).

*October.*—Hardness before boiling 9 degrees; after 4 degrees. The hardness is half a degree lower, and the albuminoids slightly higher than last month, otherwise there is no change. (Wigan).

Hardness before boiling 14 degrees; after 5 degrees. The above Pemberton is still 3 degrees softer in permanent hardness, but higher in albuminoids than last month. This is probably due to the increased flow of surface. (Pemberton).

*November.*—Hardness before boiling 9·5 degrees; after 5·5 degrees. The above water shows little change from last month. The water is clear and does not deposit on standing. (Wigan).



Hardness before boiling 13·5 degrees; after 5 degrees. The above is practically the same as last month. A very slight deposit is noticed on standing for a few days. (Pemberton).

*December.*—Hardness before boiling 8·5 degrees; after 3 degrees. The above water is somewhat softer than the sample taken last month. The water is bright and excellent for drinking and washing purposes. (Wigan).

Hardness before boiling 12 degrees; after 6 degrees. There is little change from last month. The water is bright and clear and does not give any deposit on standing. (Pemberton).

### RAINFALL, 1905.

<i>Month.</i>	<i>Rainfall in Inches, and tenths</i>	<i>No. of days on which rain fell, being .01 of an inch or more.</i>
January .....	1.32	15
February .....	2.01	17
March .....	2.81	23
April .....	2.84	19
May .....	0.59	9
June .....	1.90	9
July .....	2.04	15
August .....	4.01	20
September .....	2.32	17
October .....	3.82	18
November .....	4.40	21
December .....	0.74	11
Total .....	28.80	194

The mean annual fall for the previous ten years is 33·73 inches.

The mean annual fall for the past 48 years is 37·29 inches.

### BLACK SMOKE NUISANCE.

Your Inspectors have taken many observations, numerous letters have been written, but we have taken

no prosecutions against the offenders. This will be necessary before we can get the evil recognised by those who produce the nuisance. In 1904, Messrs. Joseph Crosfield and Sons, Ltd., published a 3rd edition of a pamphlet showing what they had done for the improvement in the mental, moral and physical condition of the people. I will quote here from page 14 of the pamphlet, "Absence of Smoke."

### ABSENCE OF SMOKE.

The problem of how to burn large quantities of common bituminous slack without smoke and with great economy has been solved at the works. Before attacking this question a few years ago, the Firm was frequently fined for emission of smoke, and if the methods then in vogue still obtained, the weekly consumption of coal would be more than 1,000 over and above what it actually is. In fact, so successfully has the problem of smoke prevention with economy been solved that the works is known in the neighbourhood as "The Works with Smokeless Chimneys." Consequent on this success, so many requests for assistance have been addressed to the Firm that it has been necessary to form a Department whose sole duty is to deal with water purification, prevention of smoke, and economy of fuel.

Dr. Sergeant, County Medical Officer of Health, in his report for 1904, says :—

"The efforts made in the County Districts to remove the atmospheric pollution due to black smoke are inadequate, and, in my opinion, little will be done by way of prevention until power is given to the County Council to appoint their own Inspectors to look after the nuisance."

Report on Smoke Abatement Conference. See Appendix.

## PROPERTY UNFIT FOR HUMAN HABITATION.

The following houses were scheduled under the Housing of the Working Classes Act, 1890, and have been dealt with.

Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, Barnes' Court, Queen Street.  
 Nos. 1, 2, 3, 4, McEwen's Yard, Millgate.  
 Nos. 4, 5, 6, Waddington's Buildings, Clayton Street.  
 Nos. 2, 3, 4, 5, 6, Fairhurst's Yard, Millgate.  
 Nos. 83, 85, 87, 89, Poolstock.  
 No. 14, Back Pool Street.  
 Nos. 1, 2, 3, 4, 5, Dobson's Yard, Princess Street.  
 Nos. 3, 4, 5, German's Yard, Princess Street.  
 Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, Griffin Yard, Standishgate.  
 House at rear of St. John's School, Brick Kiln Lane.  
 Nos. 46, 48, 50, Princess Street.  
 Nos. 4, 5, 7, Manchester Place.  
 Nos. 1, 2, Rainford's Buildings.  
 No. 3 Ash Street.

Most of these houses have been either demolished or put in a sanitary condition, with the exception of one cottage. As the owner failed to carry out what he agreed to do, we proceeded against him under the Housing of the Working Classes Act, 1890, but the magistrates dismissed the case, but without costs.

A couple of extracts here in reference to this subject will not be out of place.

Extracts from the *Sanitary Journal*, November, 1905.

The Medical Officer of Health of Otley recently stated in Police Court evidence that the fact that the inmates of a house had not had occasion to call in a doctor for twenty years, and that the previous occupiers had brought up a family of ten children, was no test of the health of a place.

Sir William Folkes stated at the West Norfolk Quarter Sessions recently, that "the absence of crime here is due to the fact that better dwellings are provided for the working classes than in any other part of the country."



## UNPAVED YARDS AND PASSAGES.

We are proceeding slowly with the conversion of pail closets into water closets, and are getting some of the unpaved yards either flagged or paved. There is, however, much to be done. Until these insanitary conditions are remedied we shall still get Enteric Fever, Scarlet Fever, and Infantile Diarrhœa.

The following is a list of unpaved Yards and Passages that have been dealt with during 1905.

3-8, Carr Lane, Pemberton	16-60, Miry Lane
32, Alfred Street, Pemberton	26-34, York Street
97, Normanby St., Pemberton	1-43, Rylands Street
Old Fold, Pemberton	1-31, Throstle Nest Avenue
Richmond St., Pemberton	220-228, Gidlow Lane
2, &c., Norfolk St., Pemberton	14-32, Spring Street
Marsh Green Inn, Pemberton	63 & others, Darlington St. E.
44-46, Warrington Road,	55, Darlington Street East
Pemberton	Walmsley Street
1-4, Scot Lane, Pemberton	2-14, Vere Street
207, Scot Lane, Pemberton	9-23, Vere Street
50-62, Bentinck St., Pemberton	34 & others, Lord Street
Schofield's Houses, Billinge Rd.,	57-65, Hardybutts
Pemberton	1-27, Golborne Street
Mitchell Street, Pemberton	59-69, Park Road
2-16, Gaskell Street	158-162, Gidlow Lane
2-12, Neville Street	2-16, Pagefield Street
14, 16, 18, Scholefield Lane	46, York Street
33, Platt Lane	

The following have also been dealt with for defective surface of Yards, &c.

16, Leopold Street, Pemberton	54, Queen Street
5, Old Fold, „	11-13, Swann Street
56a, Enfield Street, „	22-38, Pottery Road
2 & 4, Northumberland St., „	7, Victoria Street
10, 14, 16, Duke Street, „	32, 60a, School Street
11, 13, 15, Brackley St., „	94-104, Darlington St. East
6, 8, 10, North'berland St. „	74, Brookhouse Street
274, Warrington Road, „	46, Boyswell Lane
4, off Chapel Street „	7, 9, 11, Rodney Street
347-351, Scot Lane, „	62-70, Hardybutts
38, Marsh Green, „	6-12, Vaughan Street
14, Chapel Street, „	2-10, Wilcock Street
215a, Ormskirk Road, „	
Jolley's Yard, Albert St., „	

## Defective Surface of Yards—continued.

Back 2, Thompson St., Pemb'ton	4-8, Kirkless Street
824, Ormskirk Road, „	26-32, John Street
2, 4, 6, Willow Street, „	2-26, Howard Street
1-7, Ash Street, „	7-25, Howard Street
2-8, Ash Street, „	15, Charles Street
5, Thorn Street, „	70, Corporation Street
10-16, Lower Morris Street	1, Bradshaw Street
18-20, Lyon Street	6-16, Golborne Street
309, 311, Whelley	67, Mesnes Street
18, Bankes Street	17, Gidlow Lane
9, Lime Street	4, 6, Teck Street
12, School Street	27, 29, Cambridge Street
216, Darlington Street East	51, Pool Street
64-70, Lower Morris Street	12, 22, Dean Street
20-30, Lime Street	Crispin's Arms, Birkett Bank
38-48, Lower Morris Street	23-55, Lime Street
St. Aubyn's, Wigan Lane	11, Standishgate
54, Prescott Street	7-9, Wilcock Street
2-12, Ann Street	17, Newark Street
37-41, Hardybutts	22, Bolton Street
7 & 9, Wiend	40-42, Miry Lane
2 & 4, Golborne Street	37-43, Platt Lane
16-60, Miry Lane	59, Poolstock
28-32, School Lane	

BOROUGH SURVEYOR'S  
DEPARTMENT.

The Borough Surveyor has kindly supplied me with the following particulars:—

	T.	C.	Q.
House refuse collected in the Borough from			
January 1st, to December 31st, 1905 . . . .	17,994	14	0
Pail excreta removed . . . . .	7,439	4	0
Nightsoil removed 10,963 loads and . . . . .	384	9	0
Number of pail closets in Borough 8,071			
„ Pails collected in 1905 462,042			
Cost (including washing and distribution) . . . .	£2,105	12	8
„ of collecting ashes during 1905 . . . . .	£2,087	17	8
Number of Privy Middens in Borough . . . . .	1,766		
„ „ emptied in 1905	14,022		
„ New houses erected in 1905 . . . .	354		
„ Slop closets put in in 1905 . . . .	Nil		
„ Water closets in Borough . . . . .	4,136		

*The whole of the above information applies to the extended Borough.*



## SCAVENGING.

Privy middens are no doubt a nidus for infectious germs, and until we have them abolished entirely we shall continue to have Enteric Fever.

Dr. Sergeant in his Annual Report for 1904, says:—

Privy middens cannot be too strongly condemned; in many reports Medical Officers of Health speak of them as having been the cause of Typhoid Fever, Diphtheria, and Diarrhœa, and in referring to these diseases I have already had occasion to mention their connection with filth. It is in privy midden districts that sensitive children suffer most from Diarrhœa, and local authorities ought to clear away these abominations before using hackneyed phrases, in the wholesale condemnation of mothers and their conduct in bringing up children.

In many of the well-governed districts privies as well as pail closets are giving way to the water carriage system; and when a good supply of water is laid on to a district slop-water closets also lose favour. Scavenging becomes less difficult and free from danger when the water carriage system is adopted, and the greatest cleanliness can be secured when the streets are well paved and drained.

## DISPOSAL OF SEWAGE.

Up to the time of the passing of the Rivers Pollution Act in 1877 the bulk of the sewage of Wigan was turned into the River Douglas which materially added to the impurity of the river.

The Local Government Board pointed out to the Corporation the defects and suggested that immediate steps should be taken to provide means of disposal of sewage in an effectual method, and one which would not be objectionable or in any way detrimental to the town. The Corporation were thus compelled to undertake a method of sewage disposal. Previous to this the town had for years contemplated carrying out a sewage scheme. The powers had been taken in the



Wigan Improvement Act of 1874, this was to enable them to carry out a system which is known as the tank system.

Subsequently the Local Government Board instructed Mr. Rawlinson, C.E., with two eminent Civil Engineers to report upon what they considered a most effectual method in dealing with the town's sewage.

After a thorough investigation they made a voluminous report which they clearly showed the best way of disposing of sewage was by irrigation. The consequence of this report, the Corporation abandoned the idea of carrying out the tank system, and they engaged Mr. B. S. Brundell, C.E., Doncaster, to make an inspection of the then existing system of sewage, and he reported to the Town Council that in his opinion the only effectual method of dealing with the matter was by means of a sewage farm, and he further reported that Wigan was favourably situated for such a system, and that it would be necessary for the Corporation to have the farm at a distance of seven miles from the Borough.

As the Corporation were liable to heavy penalties for the non-compliance with the Rivers Pollution Prevention Act, application was made to the Local Government Board for extension to time in which steps had to be taken to comply with the provisions of the Act in order that the Corporation might complete their arrangements. The extension of time was granted, and further extension was allowed after it had been decided to carry out Mr. Brundell's scheme. This sewage farm was opened by the then Mayor, Mr. J. W. Lamb, on the 20th of April, 1881.

A brief description of the work taken from the *Observer* of April 22nd, 1881.

*Contract No. 1.*—Comprised the making of  $7\frac{1}{8}$  miles of 27-in. diameter cast iron pipes, the aggregate weight of metal being about 5,000 tons.

*Contract No. 2.*—Consisted of the excavation necessary to lay the pipes from Wigan to Newburgh, and other works connected wherewith.

*Contract No. 3.*—Was for the executing of Sewers in Wigan, those emptying in River Douglas, including the screen chamber and the necessary outflows and other works.

*Contract No. 4.*—Includes all works necessary for laying out the land for the sewage farm.

*Contract No. 5.*—Comprises the supply of all sanitary pipes required.

*Contract No. 6.*—Includes the extension of farm building.

*Contract No. 7.*—Was for the construction of roads to the outfall works.

The outfall works consists of laid out grounds, the whole area being  $1\frac{3}{4}$  acres enclosed by substantial fencing 6 feet high. At this place (outfall works) all the sewers of the town were intercepted. To intercept the sewers it was necessary to construct a brick sewer 4-ft. 6-in. in diameter in continuation of the sewer from Miry Lane. This brick sewer, 260 yards long, and other new culvert 3-ft. 6-in. diameter, and 260 yards long, picking up the sewer from Frog Lane, and this joins the 4-ft. 6-in. sewer already mentioned. These sewers are entirely surrounded with concrete, 6-in. thick.

Under the bed of the Leeds and Liverpool Canal cast iron pipes 3-ft. 6-in. in diameter are laid as part of the sewer and entirely surrounded with concrete instead of the brick culvert. These sewers are conducted to a large chamber constructed of brickwork on a solid foundation of solid concrete measuring within the walls 41-ft. long and 22-ft. wide and 14-ft. deep.

Into this chamber nearly all the sewage of Wigan is conducted. The chamber is so arranged that one half can be used at a time while the other half is being



cleaned out. There are seven large iron circular lifting doors or penstocks, ranging from 3-ft. to 4-ft. 6-in. in diameter, built in the division walls for the purpose of regulating the flow of sewage. At the lower end of the chamber there are wrought iron screens placed almost vertically with bars  $1\frac{1}{4}$ -in. apart. The whole width for the purpose of arresting the refuse which more or less finds its way into the sewers. At the lower end of the screened chamber into which the sewage flows, and so passes down the cast iron pipes to the farm at Newburgh. Ample provision is made in the screen chamber to pass away by means of overflows the storm waters. There are three of these, one being the low level outlet from the sewage cell, the two others are as the higher level overflows from the screened chamber itself. These are designed to carry away the storm water when the River Douglas is very high, and the lower one cannot be used. The whole of these works are so constructed as to be out of the reach of the flows which often take place in the river.

The main which conducts the sewage from Wigan to Newburgh passes through the villages of Gathurst, Appley Bridge, and Parbold, running nearly parallel to the Leeds and Liverpool Canal.

The pipes are of cast iron laid throughout the whole length of  $7\frac{1}{8}$  miles at a depth varying from 4-ft. 6-in. to 20-ft. below the surface; in its course it crosses the River Douglas eleven times, namely:—in seven instances by the pipes being laid in the bed of the river, the same level as the pipes on either side, in three other cases by inverted pipes, that is, by dipping the pipes on one side of the river and rising again on the other, and one case at Parbold where the main is carried across the river by means of a wrought iron tube supported by massive brick retaining walls appearing in middle of the river.

There are at intervals of about 550 yards, extending three miles from Wigan, what are termed deposit chambers: these are 6-ft. long by 3-ft. wide, and 18-in.



below the bottom of pipes, and are intended to catch any sediment escaping down the pipes.

The main also passes three times under the Lancashire and Yorkshire Railway, namely :—at Wigan, Gathurst, and Parbold, and also by a tunnel under the Leeds and Liverpool Canal, besides several streams met with in its course. For the first three miles from Wigan the pipe joints are done with lead, each joint taking about 70-lbs, the remaining length of pipes by what is termed “turned and bored” joints. That is, the ends are truly planed round so as to fit one into the other, and made perfectly tight by knocking up by what is technically known as a “tup.” There are no outlets of any description on the line of pipes until we reach the farm, and at its boundary by what is termed the low level outlet. The total fall from Wigan to this joint is 44-ft. in a length of 12,056 yards, giving an average inclination of 1 in 822 or little over 6-ft. per mile.

From this point to the end of the cast iron main there is a rise 7-ft. 6-in. length of 490 yards where there is erected a tower to receive the sewage ; it is 4-ft. square internally, and 4-ft. 6-in. high, and built in cement brickwork 14-in. thick and from this point the whole of the farm can be irrigated with the sewage by means of the cast iron slide doors fixed in the bottom of the tower.

The ground level at this point is 10-ft. below the highest part of the farm, and when it is desired to irrigate this high portion the sewage is made to rise in the tower and is forced along cast iron pipes 18-in. in diameter under the Lancashire and Yorkshire Railway until it makes its exit out of a pipe built in the wall of one of the small brick chambers specially constructed for the purpose, and it is then conducted over the fields by small channels cut in the ground.

The sewage in these channels is made to overflow and percolate through the soil, and eventually the effluent passes away into the under drains, which are generally 4-ft. 6-in. beneath the surface.

The sewage farm is leased for the term of 99 years, and generally is very suitable for irrigation. The subsoil generally is of a light, sandy nature, but some of the lower fields are not quite so suitable for irrigation, as they are of a loamy character.

The area of the farm is about 270 statute acres, 160 of which are arable, and the rest 110 pasture lands. Of the arable lands, 70 acres are being sown with various crops.

Some time after the opening of the farm, an arrangement was made with the Earl of Lathom, by which the sewage can be turned on to what are known as the Wilbraham meadows during seven or eight months in the year. The area of the meadows is 150 acres.

As the farm had been subject to floods from the overflowing of the River Douglas the first work executed was the construction of suitable embankments around the farm to keep out these flood waters, the aggregate length of these embankments being nearly four miles.

All the drains also were widened, deepened, and considerably improved, and new ones put so as to thoroughly and efficiently carry off all water falling on the land, and also the effluent derived from the sewage. The total length of the drains improved in this manner exceeds three miles, and they are conducted and concentrated at the lowest part of the farm, adjoining the River Douglas, into which the water finds its way. At this point there is built a very substantial building with an 8-in. centrifugal pump and vertical boiler to lift the water over the top of the river embankment, as it is not able to flow out by gravitation. It must be mentioned that no water from the high land surrounding the farm is allowed to be brought to the pumping engine, the whole is provided for by arterial drains. The farm is divided into about 40 distinct fields, 11 of them have had under-drains consisting of 4-in. and 6-in. drain tiles laid to a depth of 4-ft. 6-in. below the surface; the remainder are more or less drained, and experience alone in the working of the fields determines



to what extent it will be necessary to add to the system of under-drains. It has been found by experience that drains if laid too close enables sewage to filter through the land too rapidly, and not do the work of filtration effectually. For the purpose of distributing the sewage there are laid throughout the farm stone-ware sanitary pipes, jointed in cement, varying in size from 12-in. to 16-in. in diameter. These pipes convey the sewage to every field, and at every 70 or 80 yards there are what are termed brick outlet chambers about 3-ft. long and 2-ft. wide, constructed so as to let out sewage on to the fields into small channels cut into the ground.

By these means the sewage can be taken to any part of the farm, and when not required on the fields arrangements has been made for the filtration of the sewage in one of these fields  $13\frac{1}{4}$  acres in extent. This field has been specially prepared and levelled in three distinct plots at various levels, and large sanitary pipes by 12, 15, or 18-in. in diameter are laid at an average depth of 6-ft. below the surface; around each plot the ground is raised about 9-in., and when the sewage has been turned on for filtration it is allowed to accumulate, and form, as it were, miniature reservoirs during the whole of the time filtration is taking place.

The average distance the sewage has to travel before reaching the large under drains is about 40 yards, and at the various chambers the sewage can be seen passing away in perfectly clear and liquid condition.

The total length of sanitary pipes used as sewage carriers is about 6 miles.

All the farm buildings were re-organised for the keeping of horses and the housing of cattle.

The total cost of the works alone is about £42,000, exclusive of engineering expenses.

The Engineer's estimate previous to the commencement of the works was £48,000.



Since the farm was opened in 1881 a larger amount of sewage has had to be disposed of, in consequence of an increased population and the water-carriage system being gradually introduced, so that now the original method of treatment has been supplemented by the construction of precipitation tanks which apparently to-day is very satisfactory.

The Borough Engineer has kindly supplied me with the following information which was prepared for the enquiry in reference to the extension of the Borough.

The sewage farm of Pemberton I have not mentioned in this report.

## **DESCRIPTION OF WIGAN MAIN OUTFALL SEWER AND SEWAGE DISPOSAL.**

The Wigan Main Outfall Sewer consists of a cast iron pipe-line 27 inches in diameter and  $7\frac{1}{4}$  miles in length, which commences from the screen chambers situate near the western boundary of the Borough and a few yards from the river Douglas.

It then follows the valley of the river Douglas in a westerly direction to the Corporation Sewage Farm at Hoscar Moss (269 acres in extent), which is situated about half-way between Wigan and Southport.

The whole of the sewage from Wigan is conveyed to the Farm, and, in addition, the whole of the sewage from Aspull and Orrell, a portion of the sewage from Ince, and a portion of the sewage from Standish.

As soon as the sewage leaves the outfall it is treated with lime and copperas, in the proportions of about 10 grains of lime and .26 grain of copperas per gallon; it then flows by means of an open brick carrier lined with stoneware channels into tanks constructed of bricks with cement concrete floors.

The larger tank is 600 feet long by 24 feet wide, with a varying depth of from 6 feet 8 inches at the end where the sewage enters to 1 foot 10 inches at the farther end, and it has a holding capacity of 383,825 gallons.

The smaller tank is 538 feet 6 inches long by 12 feet wide, with a varying depth of from 5 feet 5 inches at the end where the sewage enters to 3 feet 1 inch at the farther end, and it has a holding capacity of 158,000 gallons.

When the tanks are full, the sewage, after the solids have had ample opportunity of precipitating, flows in a thin sheet over cills of considerable length at the shallow end of the tank. The cills are constructed of smooth concrete flags. The sewage is then conveyed by means of half pipe carriers on to about 13 acres of natural filter beds consisting of soil and sand, and drained at a depth of about 4 feet.

The filter beds are so arranged with respect to levels that the effluent after leaving the beds and flowing through a brick chamber lined with white glazed bricks can be discharged into the river, or, if necessary, taken on to the lower fields before being so discharged. The land is excellent for sewage farm purposes, being mostly of a sandy nature, and on no portion of it is there a stiff clay.

When it is necessary to clean the tanks one of them is emptied of sewage and the sludge at the bottom is forced by a mechanical squeegee to a sluice at the deep end, where it is conveyed through a brick chamber along open channels to the sludge beds, about 4 acres in extent. The sludge is left on these beds to dry, and is then sold to the farmers in the neighbourhood, who cart it away. The Corporation have no difficulty whatever in disposing of their sludge.

I believe that the tanks mentioned above were the first of their kind in size and shape constructed in this country.



## MIDWIVES' ACT, 1902.

The Midwives' Act became law on the 1st day of April, 1905. It is an Act to secure the better training of midwives and to regulate their practice. By it the midwives who practice in the borough come directly under the supervision of the Sanitary Authority. All midwives who were in bona-fide practice for at least one year previous to the 31st of July, 1902, and bore a good character, were entitled to be registered under the Act. There are 50 women on the midwives' register for the borough. Five of these are on the Wigan Union Infirmary Staff. One midwife has left the district. From time to time during the year the midwives were visited at their houses, where what was required of them to comply with the new regulations was explained and special instruction regarding cleanliness and the use of antiseptics was imparted. The homes were inspected, and in several cases domestic cleansing enforced. The passing of the Act has done away to a great extent with the undesirable woman, the untrained occasional midwife, and it has brought the midwives to a greater sense of their responsibility. In time it will bring about a condition of things where all midwives will have gone through a proper course of training, and thus the risks to which the child bearing woman of our population are subject will be minimised. There are seven registered certified midwives practising in the Borough, 15·9%. Nineteen 43·1% can neither read nor write, yet many of these are sensible practical women.

Bath accommodation was found in two homes only.

The average age of the midwife in the Borough is 52 years ranging between 34 and 70 years.

During the year there were 16 cases of Puerperal Fever notified. Number of deaths:—nine.

Mortality per 1,000 of the population ·10.

There was no spread from one case to the other. The midwife in each case was stopped from attending cases, and her clothes thoroughly disinfected before again resuming her duties.



The supervision of this Act entails a good deal of detailed work in my department. This was ably carried out by Dr. Fraser, Assistant Medical Officer of Health.

*Duties of the Medical Officer of Health under the Midwives' Act, 1902.*

1.—To inspect the case-book of each midwife to see if it is properly entered up.

2.—To inspect bag of appliances as to—

- (a) Antiseptic washes.
- (b) Antiseptic lubricants, and
- (c) Cleanliness or otherwise of Instruments.

3.—To report as to personal cleanliness of midwife.

4.—To report as to cleanliness and sanitary condition of midwife's place of residence.

5.—To see that midwife has suitable washable dresses for use only in her practice.

6.—To exercise an educational influence on such of the midwives as are in need of improvement.

7.—To carry out such routine correspondence in connection with the general supervision of midwives as the County Medical Officer of Health may direct.

8.—To report on any case of malpractice, negligence, or misconduct on the part of any midwife as the County Medical Officer of Health may direct, or she herself may become aware of.

The midwives rules provide the following duties for the supervising authority.

## MIDWIVES' RULES.

Section 8.—Every Council of a County or County Borough throughout England and Wales shall, on the commencement of this Act, be the local supervising authority over midwives within the area of the said County or County Borough. It shall be the duty of the local supervising authority—

- (1) To exercise general supervision over all midwives practising within their area in accordance with the rules to be laid down under this Act.
- (2) To investigate charges of malpractice, negligence, or misconduct, on the part of any midwife practicing within their area, and should a *prima facie* case be established, to report the same to the Central Midwives Board.
- (3) To suspend any midwife from practice, in accordance with the rules under this Act, if such suspension appears necessary in order to prevent the spread of infection.
- (4) To report at once to the said Board the name of any midwife practising in their area convicted of an offence.
- (5) During the month of January of each year to supply the Secretary of the Central Midwives' Board with the names and addresses of all midwives, who during the preceding year, have notified their intention to practice within their area, and to keep a current copy of the roll of midwives, accessible at all reasonable times for public inspection.
- (6) To report at once to the Central Midwives' Board the death of any midwife or any change in the name or address of any midwife in their area, so that the necessary alteration may be made in the roll.
- (7) To give due notice of the effect of the Act, so far as practicable, to persons at present using the title of midwife. The local supervising authority may delegate, with or without any restrictions or conditions as they may think fit, any powers or duties conferred or imposed upon them by or in pursuance of this Act, to a committee appointed by them, and consisting either wholly or partly of members of the council, and the provisions of sub-section one and two of section eighty-two of the Local Government Act, 1888, shall apply to every committee appointed under this section, and to every council appointing the same, and women shall be eligible to serve on any such committees.

## COUNTY BOROUGH OF WIGAN.

Midwives on Register, year ending 31st December,  
1905.

<i>Name.</i>	<i>Registered No.</i>
Atherton, Ann .....	4,607
Appleton, Mary A. ....	890
Ashton, Ellen .....	3,740
Archer, Annie M. ....	4,143
Alcock, Florence A. ....	17,693
Blatherwick, Jane .....	3,878
Baxter, Mary E. ....	661
Banks, Jane .....	891
Bentham, Elizabeth .....	6,722
„ Ellen .....	19,486
Booth, Maria .....	3,263
Cox, Jane .....	933
Coxhead, Jane .....	4,351
Cowley, Elizabeth .....	3,780
Cunliffe, Mary .....	19,073
Coates, Charlotte .....	20,134
Daniels, Ellen .....	9,585
Finch, Eliza .....	3,760
„ Alice .....	4,360
„ Jane .....	7,694
Grundy, Maria .....	3,643
Groncott, Harriet .....	5,241
Green, Sarah .....	13,239
Holland, Ellen .....	2,531
Halliwell, Ann H. ....	4,121
Humphries, Margaret .....	4,479
Holland, Elizabeth .....	3,784
Hoy, Louisa .....	19,889
Kynaston, Jane E. ....	9,942
Lyon, Sarah .....	596
Langshaw, Ann' .....	3,621
Layland, Alice .....	5,276
Latham, Maria .....	4,342
McQuillan, Sarah .....	2,676
McCann, Margaret .....	2,532
Morris, Sarah .....	5,231
Massey, Elizabeth .....	4,144
Moss, Elizabeth .....	15,722
Patrick, Ann .....	6,335
Perkins, Margaret A. ....	4,145
Pilkington, Hannah .....	11,088
Priest, Catherine .....	17,057
Perry, Nancy .....	17,052
Rigby, Mary A. ....	2,765
Riley, Annie .....	1,688



<i>Name.</i>	<i>Registered No.</i>
Taylor, Ann .....	3,331
Thorpe, Milicent.....	4,146
Wilson, Dorothy .....	558
Wallwork, Mary .....	659
Worthington, Elizabeth .....	4,367
Welsh, Alice .....	4,346
<i>Residing outside, but practising in Wigan:</i>	
Davies, Mary A.....	2,780

## THE EDUCATION ACT OF 1902.

In consequence of the Local Authority being the Education Authority, and of the necessity for supervising the Sanitary arrangements of the Schools as well as the health of the scholars, many authorities have appointed their Medical Officers of Health to be Medical Officer to the Education Authority.

The duties of the Medical Officer to the Manchester Education Authority are as follows :

- (1) To visit each school at least once a year, and report in writing as to the sanitary condition of the premises, and to attend, when requested, any meetings of the Education Committee or sub-committees.
- (2) To examine blind and deaf children in order to decide whether they are suitable cases to be dealt with under the Act, and to give the necessary certificates.
- (3) When required to examine any plans for new buildings or alterations of existing buildings, and to report as to their sanitary arrangements, ventilation, lighting, &c.
- (4) To examine medically all candidates selected for appointment under the committee, or employés, when required by the committee, and to make out certificates.
- (5) To examine medically candidates for pupil teachership and pupil teachers at the end of the second year, and to make out the certificates required in each case by the Board of Education.
- (6) To visit, when required by the committee, any employé who is absent from duty on account of illness, and to report in writing,
- (7) To examine, when required by the committee, any child who is stated to be physically unfit to attend

school, and to make out a certificate. (Special arrangements are made for the examination, &c., of feeble-minded children.) (8) To give the committee the benefit of advice on special occasions when required. (9) The Medical Officer to devote the whole of his time to the duties of his office.

### MEDICAL INSPECTION OF SCHOOLS.

This subject is referred to by the Medical Officer of Health for Cardiff (Dr. Edward Walford) in his report for 1904. He considers that a routine medical inspection of all the schools in the town should be carried out under the direction of the Education Committee, having chiefly in view the following objects:—

1.—To ascertain, and to certify as to the cause of absence from school on account of illness of pupils or teachers.

2.—To confer with the head teachers at the school on the general state of health of the teachers and scholars, and particularly as to the condition of children considered to be physically or mentally weak, and to report to the committee the result of such conference.

3.—To take the necessary steps for excluding from school attendance children suffering from communicable disease.

4.—To examine all children known to have recently been in contact with a person suffering from an infectious disease.

5.—To examine and report upon to the committee the sanitary condition of all schools under their control.

Dr. Alfred Greenwood in a paper read before the North Western Branch of the Incorporated Society of Medical Officers of Health in Manchester, on December 15th, 1905, on *Some Recent Developments*



*in School Hygiene*, stated — The inter-departmental Committee on Medical Inspection and feeding of children attending public Elementary Schools found forty-eight authorities under Part III of the Education Act of 1902 in addition to London, in whose areas a definite system of medical inspection has been established. These forty-eight areas comprise two counties, twenty-five County Boroughs, ten Boroughs, and eleven Urban Districts.

The report of that Committee states that not infrequently the Medical Officer of Health has been appointed Medical Officer to the Education Committee, and that this arrangement has many conveniences, as it has often been the outcome and development of the work done by the Medical Officer of Health in visiting the schools for the prevention of the spread of infectious diseases.

Medical Officers for Education purposes have been appointed by six Counties, thirty-one Boroughs, and thirteen Urban Districts.

As I called attention to the desirability of the School Medical Officer and the Medical Officer of Health being the same official in my paper before you last year, it may be of interest if I quote the remarks of the above-named Committees on this subject.

“ The duties of the two officers naturally overlap, or may do so. The inspection of children for the prevention of the spread of infectious disease and the sanitary inspection of the premises are examples of this. The Union of the two offices tends to prevent duplication of the work. It has the additional advantage that the staff of the Authority's Sanitary Department is thus made easily accessible for any special work. They are employed for disinfecting schools and for following up cases of dirty and verminous children, and for obtaining attention to the condition of the homes as well as of the children. At the same time the Medical Officer of Health finds that



his position of Educational Medical Officer greatly facilitates his work in preventing the spread of infectious disease. The chief danger of the arrangement is that the work for the prevention of infectious disease may tend to swamp the work in other directions."

The Committee have also referred to the difficulties of a School Medical Officer who is also in private practice.

The results of medical inspection of school children hitherto carried out have been set forth by the Committee in seven paragraphs.

These may be summarised as follows :—

1.—The establishment of proper organisations for the prevention of the spread of infectious disease, which includes increased knowledge on the part of teachers, and prompt action. In no small measure is this due to the combination of the Sanitary and Educational Authorities by the Education Act of 1902.

2.—The results of greater cleanliness of school children, and measures for the prevention of ringworm.

3, 4 & 5.—The attention paid to defective children and impaired vision, with the supply of surgical apparatus and spectacles as a result. Also defective hearing is being dealt with.

6 & 7.—The increased interest of the teacher in the physical welfare of the children, which has frequently resulted in the treatment of defects, and the more strict supervision of the light, ventilation, and sanitary condition of school buildings.

# COUNTY BOROUGH OF WIGAN



## ANNUAL REPORT

OF THE

*Chief Sanitary Inspector.*

**1905.**

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# Annual Report of the Chief Sanitary Inspector

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HEALTH DEPARTMENT,  
KING STREET WEST,  
WIGAN,

FEBRUARY, 1906.

*To the Chairman and Members of the Health Committee.*

SIR AND GENTLEMEN,

I have the honour to submit to you my fifteenth Annual Report of the work done by the staff of this department during the year ending 31st December, 1905.

As you are aware the work of the Health Department increases year by year, and the one we have just completed shews no falling off, but instead, shews a greater amount of work consequent of us having the enlarged Wigan to deal with and no increase in Staff, this will be easily seen from the statistics appended.

On account of the large number of cases of Infectious Diseases we have had to deal with during the year, Inspector Martlew has had to practically devote the whole of his time to that work which has naturally thrown a greater amount of work on the rest of the staff.

The following is a summary of the work done and a description of the nuisances dealt with :—

Houses and Premises Inspected and Visited ( <i>re</i> Nuisances and Complaints)	.. .. .	8,964
Nuisances Discovered	.. .. .	2,195
„ Abated	.. .. .	1,652
Notices Issued (Preliminary)	.. .. .	679
„ „ (Formal)	.. .. .	902
Letters Written <i>re</i> Nuisances	.. .. .	131
<i>Re</i> Inspections Made (about)	.. .. .	5,600
Other Visits Made	.. .. .	1,707
Nuisances Remaining on Books, December 31st, 1905	.. .. .	800

## DESCRIPTION OF NUISANCES DEALT WITH.

Defective Drainage .. .. .	105
Choked Drainage .. .. .	173
Defective Gullies .. .. .	34
Foul Gullies .. .. .	16
Gullies requiring Grids .. .. .	33
Defective Slopstones .. .. .	5
Want of Slopstones and Pipes .. .. .	32
Defective and Choked Sink Waste Pipes .. ..	103
Sink Waste Pipes connected to Drains .. ..	16
Bath and Lavatory Waste Pipes connected to Soil Pipes .. .. .	1
Bath and Lavatory Waste Pipes connected to Drains .. .. .	1
Bath and Lavatory Waste Pipes Defective ..	2
Soil Pipes or Connections Defective .. .. .	11
„ Insufficiently Ventilated or Un- ventilated .. .. .	2
„ Inside Premises .. .. .	1
Defective Ventilating Shafts .. .. .	5
„ or Choked Water Closets .. .. .	23
„ Closet Roof and Walls .. .. .	56
„ „ Door or want of .. .. .	35
„ „ Seat .. .. .	8
„ „ Floor .. .. .	8
„ and Choked Waste Water Closets .. ..	32
„ Ash House Roof and Walls .. .. .	12
„ „ Door or want of .. .. .	20
„ „ Floor .. .. .	6
Want of Ash Tub Covers .. .. .	37
„ Ash Tubs .. .. .	9
Foul and Defective Privies and Ash Pits .. ..	51
W.C.'s without Proper Water Supply .. ..	2
Defective W.C. Cisterns .. .. .	11
Insufficient Closet Accommodation to Houses or Workshops .. .. .	69
Defective or Foul Urinals .. .. .	3
„ Spouts (eave or downspouts) .. ..	112
Want of Spouting to Premises .. .. .	11
Downspouts connected to Drain .. .. .	12
Defective Roofs .. .. .	88
„ Yard Surface round Gulley .. .. .	86
„ Flagging or Paving .. .. .	163
Unpaved Yards and Passages .. .. .	181
Houses without Proper Drainage .. .. .	26
„ Overcrowded and Keeping of Lodgers..	33
„ and Premises Filthy .. .. .	12
„ requiring Walls and Ceilings Limewashing, &c. .. .. .	56
„ with Filthy Closets .. .. .	12
„ „ „ Yards and Entries .. ..	9

Houses with Damp or Defective Walls .. ..	20
„ without Proper or Through Ventilation (back to back houses) .. ..	22
„ without Proper Water Supply .. ..	7
„ with Foul Closets (pan or others) .. ..	2
Workshops insufficiently Ventilated .. ..	1
„ requiring Limewashing .. ..	2
Bakehouses „ „ .. ..	3
Defective Middensteads .. ..	5
Want of „ .. ..	4
Accumulation of Manure .. ..	9
„ Water .. ..	10
„ Rubbish .. ..	27
Keeping of Animals .. ..	65
Smoke Nuisances .. ..	4
Miscellaneous .. ..	291

### COMMON LODGING HOUSES.

The above houses in the Borough have been regularly visited both by day and night by Inspector Bishop and myself, and have generally been found in a satisfactory condition. There have been times when it has been found necessary to administer a caution to some of the keepers on account of some irregularity, but it has never been necessary to take legal action; in fact, the keepers, I can safely say, do their utmost to assist us by seeing their premises are kept according to the requirements of the Bye-laws.

In my previous reports I have drawn attention to the class of house we have in the town used as Common Lodging Houses, and can only reiterate my previous statement that considering the fact that the houses have (in the majority of instances) been adapted as lodging houses they will bear favourable comparison with those of other towns. I am pleased to say that during the past year we have been entirely free from any case of Infectious Disease in these houses.

### COMMON LODGING HOUSES.

No. of Common Lodging Houses Registered in the Borough .. ..	18
„ Lodgers Allowed Nightly .. ..	780
„ Visits by Day .. ..	2,459
„ „ Night .. ..	226
„ Lodgers Reported as being Received (per returns) .. ..	198,072
„ Letters sent out .. ..	9
„ Houses “ Let-in-Lodgings ” on Register	53
„ Visits to Houses Let-in-Lodgings .. ..	39



27 APR 1906

## COMMON LODGING HOUSES.

No. on Register.		Registered for
1	2 and 4, John Street .. .. .	12
2	"Brown Cow," Queen Street .. .. .	24
4	46, Queen Street .. .. .	23
5	1, 3 and 5, Union Street .. .. .	48
6	16, Hardybutts .. .. .	8
7	87, 89 and 91, Millgate .. .. .	60
8	1, Hardybutts .. .. .	100
12	7, Wiend .. .. .	28
13	1, Swift's Yard, Millgate .. .. .	38
14	7, Hardybutts .. .. .	12
15	32, .. .. .	29
24	28, Wiend .. .. .	41
34	27, Hallgate .. .. .	85
35	19, Warrington Lane .. .. .	33
36	1, 3, 5, 7 and 9, Scholes .. .. .	82
37	7 and 9, Union Street .. .. .	52
38	36 and 38, Hardybutts .. .. .	88
39	21, Hardybutts .. .. .	17

## SLAUGHTER HOUSES AND MARKETS.

The above have been regularly visited by the staff on the usual killing days, and I have also made surprise visits at night time, and I am pleased to be able to report that in nearly all instances the occupiers have been found trying to co-operate with this department by keeping their premises as they are required to do so by the bye-laws. In some instances their attention has had to be called to the fact that the offal, &c., has not been removed as often as it should be, but in no instance has a second caution been necessary. The butchers, as a body, we find only too willing to acquaint us when they have any doubt about their beasts when killed, and we are only too willing to oblige them and give our opinion as to whether the carcase is fit for food. There are some, I am afraid who do not do this always.

You will see from the appended list the number of cases we have been called in to see the animals after they have been killed. This shews an increase over the number seen last year, and is due, no doubt, to a better understanding between the trade and the staff, and also to a severe warning note being sounded by the Medical Officer of Health at the annual dinner of the Butchers' Guardians Association. The wholesale Markets are regularly visited, and always been found in a satisfactory condition.

## SLAUGHTER HOUSES &amp; MARKETS, &amp;c.

No. of Slaughter Houses	.. .. .	28
„ Offensive Trade Premises	.. .. .	5
„ Visits to Slaughter Houses and Offensive		
Trade Premises	.. .. .	727
„ „ Markets	.. .. .	394

## SLAUGHTER HOUSES.

Behind 8, Darlington Street	.. ..	F. Knorzer
„ 60, Darlington Street	.. ..	J. H. Green
Upper Morris Street	.. ..	W. Walsh
Rigby's Buildings, Scholes	.. ..	H. Smith
Behind 124, Scholes	.. ..	J. Watts
Wiend	.. ..	H. Sawbridge
Water Street	.. ..	J. H. & W. Cordeaux
Behind 75, Wigan Lane	.. ..	J. Jackson
Bottom Croft	.. ..	W. R. Dunbar
Shaw's Yard, Hallgate	.. ..	J. Smirk
Clayton Street	.. ..	C. Sawbridge
Hilton's Yard, Scholes	.. ..	J. Hilton
Mill Yard, Scholes	.. ..	E. Hamill
Behind 53, Birkett Bank	.. ..	B. Turner
Altham's Yard, Standishgate	.. ..	R. V. Swarbrick
Silver Street	.. ..	E. McAvoy
Behind 133, Standishgate	.. ..	J. Hill
122, Scholes	.. ..	J. Lowe
Shaw's Yard, Hallgate	.. ..	H. Hurst
132a, Ormskirk Road, Newtown	.. ..	T. Rigby
Walthew House Farm, Marsh Green	.. ..	J. W. King
274, Billinge Road, Highfield	.. ..	W. Fairhurst
808, Ormskirk Road, Lamberhead	.. ..	
Green	.. ..	J. Rigby
Brickcroft, Lamberhead Green	.. ..	W. H. Pennington
841, Ormskirk Road, Lamberhead	.. ..	
Green	.. ..	E. Hitchen
Smithy Brook, Goose Green	.. ..	C. Ashton
270, Warrington Road, Goose Green	.. ..	R. Britton
Bridgewater Street, Newtown	.. ..	J. T. Bannister

## FELLMONGERS.

Millgate	.. ..	Bolton Hide Co.
Church Street	.. ..	J. Smith

## GUT SCRAPERS.

Crompton Street	.. ..	J. Eckmann
Robin Hood Yard, Hallgate	.. ..	F. Pietsch

## TRIPE DRESSER.

Watmough's Yard, Scholes	.. ..	P. Gallagher
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Number of Beasts that have been inspected by request during 1905.

No. of Beasts passed .. .. .	116 & parts
„ „ condemned .. .. .	7 „
Total .. ..	<u>125</u>

### FOOD CONDEMNED, 1905.

January	...1 box of Fish.	52 Rabbits.	6 Geese.	1 Beast.
March	..... „	46 „		
April	..... „	1 waggon load of Carrots.		
May	.....1 box and 7 kits of Fish.	1 Lamb.		
June	.....1 barrel and 7 boxes of Fish.			
July	.....58½ boxes, 6 barrels and 1 kit of fish ;	1 barrel of Crab Fish, and 1 bag of Winkles.	1 Beast.	
August	....2 Salmon, 4 boxes of Fish, and 5 Chickens.			
September	.105 Rabbits, 12 Ducks, and 2 Hares.	2 Beasts.		
October	....12 boxes of Fish, 87 Rabbits, 1 bag of Prawns, and 1 Beast.			
November	..1½ lbs. of Halibut, 5½ cwts. of Beef, and 1 Lamb.			
December	..10 boxes of Smoked Fillets, and 292 Geese.			

The following statement shows the quantities of unwholesome food destroyed at the Miry Lane Depot during the year :—

	Tons	Cwts.	Qrs.
Beef .. .. .	4	12	1
Pork .. .. .	0	2	2
Flat Fish .. .. .	9	14	1
Total .. ..	<u>14</u>	<u>9</u>	<u>0</u>

In addition to the above the following was destroyed :—

	Tons	Cwts.	Qrs.
Shell and Fish Refuse .. .. .	11	6	1
Other Refuse .. .. .	358	12	3
Total .. ..	<u>369</u>	<u>19</u>	<u>0</u>

### CANAL BOATS ACTS, 1877 TO 1884.

The length of canal in the Borough has frequently been visited during the year, and the boats plying on the same have been inspected, and generally found in a clean state. There has been a decided falling off in the number of children found on board, and when these have been found it has nearly always been during the holiday season, or they have been children in arms or too young for school. Some few contraventions of the Acts and Regulations have been come across and notices have been served on the owners ; these have been complied with.



H.M. Inspector made his annual inspection in the month of February, and after having carefully gone over the work done, expressed himself highly pleased with the way the work was carried out in the Borough.

#### CANAL BOATS ACTS, 1877 TO 1884.

No. of Boats Registered at Wigan .. .. .	129
„ Applications for Registration during 1905 .. .. .	5
„ „ „ „ „ „ „ „ „ „ .. .. .	5
„ Inspections .. .. .	178
„ Notices Issued .. .. .	4
„ „ „ „ „ „ „ „ „ „ .. .. .	8
„ Contraventions of Regulations .. .. .	4
„ Boats Re-registered .. .. .	2
„ Letters sent out .. .. .	28

#### SMOKE NUISANCES.

During the year numerous observations of the different chimneys have been taken, and generally have been of a satisfactory character, the stokers have in many instances been spoken to and cautioned with good results.

No. of Smoke Observations taken .. .. .	225
„ Notices Issued .. .. .	4
„ „ „ „ „ „ „ „ „ „ .. .. .	2
„ Letters sent out .. .. .	28

#### INFECTIOUS DISEASES.

Appended is a list showing the work done in connection with Infectious Diseases. Inspector Martlew has had to devote his entire time to this work, and the number of visits made show the amount of work there is in connection with this branch.

#### INFECTIOUS DISEASES (PREVENTION ACT).

No. of Houses Disinfected .. .. .	1,407
„ Rooms „ .. .. .	1,785
„ Beds „ .. .. .	1,612
„ Mattresses „ .. .. .	849
„ Sheets and Quilts Disinfected .. .. .	4,425
„ Other Articles „ .. .. .	12,581

No. of Premises Cleansed and Limewashed after Infectious Disease .. .. .	1,060
„ Visits to Houses <i>re</i> Cleansing and Limewashing after Infectious Disease .. .. .	1,714
„ Visits to Houses <i>re</i> Infectious Disease .. .. .	2,997
„ Letters sent out <i>re</i> Limewashing, &c. .. .. .	168
„ „ „ <i>re</i> Infectious Disease .. .. .	18

## SALE OF FOOD & DRUGS ACTS, 1877 TO 1899.

### MARGARINE ACTS, 1877 TO 1899.

No. of Samples obtained for Analysis .. .. .	305
„ „ Genuine .. .. .	295
„ „ Adulterated .. .. .	10

	Samples.	Genuine.	Adulterated.	Not formal Samples.
Milk .. .. .	160	158	2	—
Butter .. .. .	70	69	1	13
Head Powders (teething) .. .. .	1	1	—	1
Compound Liquorice Powders .. .. .	12	12	—	—
Liquorice Powders .. .. .	1	1	—	—
Lard .. .. .	8	8	—	8
Coffee .. .. .	19	17	2	8
Margarine .. .. .	1	1	—	—
White Pepper .. .. .	10	10	—	—
Ground Ginger .. .. .	5	5	—	—
Mustard .. .. .	4	3	1	—
Brandy .. .. .	3	3	—	3
Scotch Whiskey .. .. .	10	6	4	2
Honey .. .. .	1	1	—	1
	<u>305</u>	<u>295</u>	<u>10</u>	<u>36</u>

Prosecutions .. .. .	4
Convictions .. .. .	4
No Action taken .. .. .	6
Persons Warned .. .. .	4
Letters sent out .. .. .	12

## SHOP HOURS ACTS, 1892-1899.

The above Acts have been carried out by Inspector Bishop in a very satisfactory manner during the year, and all the workrooms on the register have been measured up, and the information forwarded to the Inspector.

I have made frequent inspections myself at the different factories, and also in company with Mr. Tinker (H.M. Inspector of Factories for this district).

## SHOP HOURS ACTS.

No. of Visits to Shops (day) .. .. .	147
„ Night Observations .. .. .	22
„ Day „ .. .. .	8

## FACTORY &amp; WORKSHOPS ACTS.

No. of Visits to Workshops (day).. .. .	868
„ „ Factories .. .. .	195
„ „ Bakehouses .. .. .	57
„ Letters sent out .. .. .	24

## DAIRIES, COWSHEDS &amp; MILKSHOPS ORDER, 1885-6.

No. of Visits .. .. .	105
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## PROSECUTIONS, 1905.

April 10th.	For selling to the prejudice of the purchaser milk not of the nature, &c., demanded. Fined 5/- and costs.
May 8th.	For selling to the prejudice of the purchaser milk not of the nature, &c., demanded. Pay costs.
June 26th.	For neglecting to comply with the notice of the Sanitary Authority requiring a filthy house to be cleansed, purified, &c. Fined 10/- a day from 3rd June (date of notice).
Aug. 21st.	For having in possession for the purpose of sale 1 salmon and 2 halves of salmon, which were unsound and unfit for the food of man. Case dismissed.
„ 21st.	For having in possession 5 chickens for the purpose of sale, they being unsound and unfit for the food of man. Fined £5 and costs.
Oct. 5th.	For selling to the prejudice of the purchaser coffee not of the nature, &c., demanded. Fined £10 and costs.
„ 5th.	For selling to the prejudice of the purchaser coffee not of the nature, &c., demanded. Fined £10 and costs.

In conclusion, gentlemen, I thank you all for the kind support given to the department during the past year, and must also thank each member of the staff for their cordial zeal and hearty co-operation in carrying on the work.

I remain, Gentlemen,

Your obedient servant,

JOHN SUMNER,

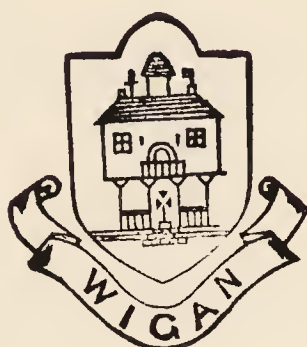
(Assoc. Royal Sanitary Inst.,)

Chief Sanitary Inspector.





# COUNTY BOROUGH OF WIGAN



## *Delegate's Report*

ON

# Smoke Abatement Conference

HELD IN LONDON,

DECEMBER 12th — 15th, 1905.



WIGAN :

Strowger & Son, Printers, Stationers, &c., Clarence Works, Wallgate





# REPORT

ON

## *Smoke Abatement Conference*

HELD IN LONDON,

DECEMBER 12TH, 13TH, 14TH, & 15TH, 1905.

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Health Office,

Wigan, December 30th, 1905.

To the Chairman and Members of the Health Committee.

Mr. Chairman and Gentlemen,

I attended with your permission the "Smoke Abatement Conference" and Exhibition, in the Horticultural Hall, Westminster, held from December 12th to 15th inclusive. The Presidential Address was to have been delivered by Sir Oliver Lodge, D.S.C., L.L.D., F.R.S., Principal, University of Birmingham, the subject was "The General Problem of Combustion Reform." Owing to illness Sir Oliver Lodge was unable to attend, and in absence of the Chairman (Duke of Fife) the Chair was occupied by Sir William B. Richmond, K.C.B., R.A., who read the address of Sir Oliver Lodge. The address emphasised very much the inefficiency of the incomplete combustion of fuel, showing that this incomplete combustion gave rise to much waste, and gave us too much smoke. He went, in some detail, into the destruction of coal and the chemical resultants. He pointed out how much this incomplete combustion gave rise to fogs, and a polluted atmosphere. He also showed how gas and electricity might be used for heating, cooking, and manufacturing purposes.

Papers were read on the following subjects :—

(1) “The Abatement of Smoke from Private Houses,” by Dr. Hades Vaeux.

(2) “Coke (charred coal) as a Domestic Fuel,” by Sir Charles Cookson, K.C., M.G., C.B.

(3) “A Record of the Work of the Leeds Smoke Abatement Society,” by Professor J. B. Cohen, Ph.D., B.Sc.

(4) “The Acids of Smoke,” by S. Rideal, D.S.C., F.I.C.

(5) “The Distribution of Producer Gas as a Means of Alleviating Smoke Nuisance,” by A. S. Ackermann, B.Sc., London, A.M., Inst.C.E., A.C.

(6) “Smoke Combustion and Coal Conservation,” by Arthur J. Martin, A.M.I.C.E.

WEDNESDAY, DECEMBER 13TH, 1905.

On this occasion the address of Sir George Livesey, M.I.M.E. (Chairman), was on “Domestic Smoke Abatement.” He stated that to induce an individual to change a long fixed habit or practice is a very difficult matter unless it could be shown to be decidedly to her or his interest and advantage. He mentioned that gas fires, gaseous firing, and gas engines, and the dynamo are potent agents for the diminution of factory smoke. He stated also that if a suitable gaseous fuel, at a low price, could be substituted for the bituminous coal, now used so largely, the trouble would be ended. He mentioned that great improvement had taken place in the last twenty years by the use of cooking stoves. The smoke from cooking he found was an old source of trouble, for the other day he found these quaint lines :—

“Observe how the chimney,  
Do smoke all about ;  
The cooks are providing  
For dinner no doubt.”

*From Poor Robin's Almanack (1695).*

Abroad close stoves are common, but England will have none of them for the heating of sitting rooms. We have been too long used to cheerful open fires—which in addition to its cheerfulness serves another most useful purpose as a ventilator—to give it up without good reason. Constructed as out-houses usually are we have to depend for ventilation on the chimney.

The discussion on the other papers was very interesting. Prof. Cohen's paper showed how much improvement had been made in reference to smoke nuisance in Leeds. Sir Charles Cookson pointed out how coke as a domestic fuel gave off less injurious products, and Dr. Rideal pointed out the injurious acids that smoke contained; whilst Mr. Martin, in his paper on "Smoke Combustion and Coal Conservation," pointed out how much might be saved by the production of gas at the pit mouth and conveying the gas by means of pipes just as we convey water.

On the second day the subject was "Factory and Trade Smoke Abatement."

The Chairman was Sir William H. Preece, K.C.B., M.Inst., C.E., F.R.S.

The following papers were read :—

(1) "Stoke and Smoke Abatement," by Commander W. F. Caborne, C.B., F.R.A.S., F.R.Inst.Soc.

(2) "Report Based upon Returns Furnished by Manufacturers who have succeeded in securing the Abatement of Smoke in Factories," by S. Rideal, D.Sc., F.I.C.

(3) "Is London Fog Inevitable," by W. N. Shaw, M.A., D.S.C., F.R.S. (Director of Meteorological Office).

(4) "The Artificial Production of Persistent Fog," by Hon. Rollo Russell, M.A., F.R.Met.Soc.

(5) "The Aims and Works of the Hamburg Smoke Abatement Society," by John R. Kershaw, F.I.C.

(6) "On Precautions necessary for Making reliable Observations of Smoke Densities," by Joseph W. Lovebond.



(7) "The Destructive Effect of Smoke in Relation to Plant Life," by Arthur Rigg (on behalf of the Royal Botanic Society of London).

(8) The Effect of Smoke on Plant Life," by Miss M. Agar (Metropolitan Gardens Association).

Commander W. F. Caborne, C.B., whose paper was on "Stoke and Smoke Abatement," detailed what had been done in the Navy for the abatement of the smoke nuisance, and mentioned that in addition to the selection of fuel and machinery for stoking and number of boilers it was important the stoking should be properly attended to, none but competent stokers should be employed. He said it was requisite that a capable stoker should understand how to burn from 10 lbs. to 40 lbs. of coal per square foot of grate surface per hour with any coal that may be supplied to him for the purpose—that he should comprehend how to manipulate his dampers (whether as grate influence or chimney draught) so as to save coal and at the same time to keep a sufficient heat of steam—that he should know how much air to admit either by opening or shutting the dampers or cleaning or picking his fires—that he should be competent to work the feed pumps and injectors; and in addition it would appear to be desirable that he should be able to test the flue gas for temperature, and also for carbonic acid gas (which should amount to 15 or 18%), because although the stoking may be excellent these tests may disclose the fact that flues are letting in air which is fatal to satisfactory results. He also said that one great difficulty which has to be contended with in many large towns and cities, and particularly in London, is the lack of room for additional boilers required by individual factories owing to the expansion of their trade, as this necessitates the burning of more coal per square foot of grate area surface per hour under the boilers already installed, and it appears to be unusual for 40 lbs. of coal or even more to be so consumed per square foot of grate surface per hour, whereas in normal cases 20 lbs. of coal would give out the proportionate efficiency.

It cannot be too strongly impressed that the inadequate boiler power is one of the prolific causes of factory smoke.

Dr. Rideal, in his paper, showed what had been done by various manufacturers in the abatement of smoke. The other papers were of interest, especially the one by Mr. John B. Kershaw, F.I.C., when he spoke of "The Aims and Work of the Hamburg Smoke Abatement Society." He mentioned that trained and efficient stokers had done much in Hamburg to abate the nuisance. The papers by Mr. A. Rigg and Miss M. Agar showed effectively the injurious effects of smoke on plant life. Mr. Rigg exhibited specimens of green leaves which he had taken from the Royal Botanical Society's Gardens, Regent's Park, London.

The subject for the last day was "Administration, Legislation and Necessary Reforms."

The Chairman was Sir William B. Richmond, K.C.B., R.A., L.C.C.

The following papers were read :—

(1) "A Plea for a Systematic, Comparative Analysis of the Air of Towns, and a Consolidation of the Law dealing with Smoke Emissions," by Sir John Ure Primrose, Bart.

(2) "Note on the Proposed Amendment of Section 24 (Sub-section 6) of the Public Health Act (London), 1891," by Julian S. Corbett, L.L.M., F.S.A. (Barrister-at-Law).

(3) "English Law relating to the Emission of Smoke from Chimneys," by Joseph Hurst (Barrister-at-Law).

(4) "Report upon Returns furnished by Local Authorities with regard to the carrying out of their Powers and Duties in the matter of Smoke Nuisances," by Lawrence W. Chubb (Secretary, F.C.I.C., Coal Smoke Abatement Society).

(5) "Smoke Abatement from the Sanitary Inspector's Point of View," by T. G. Dee (Sanitary Inspector, Westminster).

(6) "The Smoke Nuisances Inspector's and their Difficulties," by W. Nicholson (Smoke Inspector, Sheffield).

The chief discussion on this day was in reference to the "Amendment of the Laws in Reference to the Smoke Nuisance." It is not necessary, however, for me to review the opinions of the authors of the papers, some of who advocated much more stringent laws and regulations being obtained from Parliament. It had been shown on previous days that the existing law under the Public Health Acts was sufficient for the purpose of obtaining smoke abatement if local authorities would enforce it. Mr. Bailie Anderson, of Glasgow, stated the great improvement they had effected in that city through recognising that it was the duty of the municipal authority to see that the people had pure air as well as pure water and pure food, and it was just as much the duty of the authority to see that the people had pure air as well as pure water, and for this purpose it was essential that authorities should put in force their powers for the purpose. Pure air was quite as essential to good health and long life as the other two necessities.

I am, Gentlemen,

Your obedient Servant,

WM. BERRY,

Medical Officer of Health.



